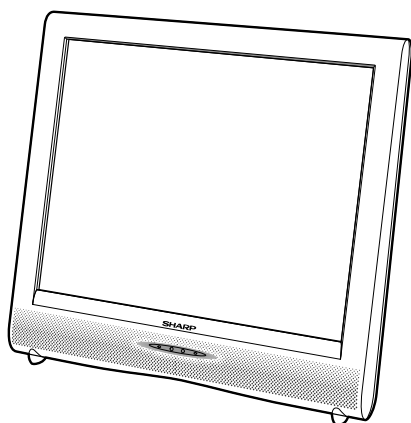


SHARP**SERVICE MANUAL****LCD COLOUR TELEVISION****LC-13SH1E**
MODELS LC-15SH1E

In the interests of user-safety (Required by safety regulations in some countries) the set should be re-stored to its original condition and only parts identical to those specified should be used.

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IMPORTANT SERVICE SAFETY PRECAUTION

- **Service work should be performed only by qualified service technicians who are thoroughly familiar with all safety checks and the servicing guidelines which follow:**

WARNING

1. For continued safety, no modification of any circuit should be attempted.
2. Disconnect AC power before servicing.

CAUTION: FOR CONTINUED PROTECTION AGAINST A RISK OF FIRE REPLACE ONLY WITH SAME TYPE F6700 (1.60A, 250V), F6702 (1.60A, 250V) AND F7701 (3.15A, 250V) FUSE.

BEFORE RETURNING THE RECEIVER (Fire & Shock Hazard)

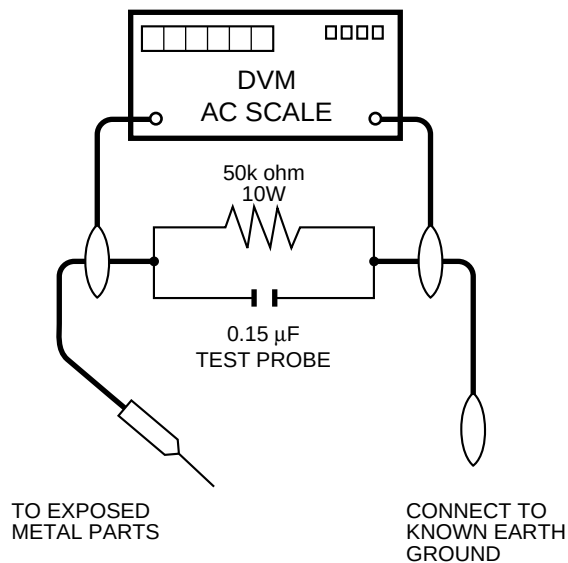
Before returning the receiver to the user, perform the following safety checks:

1. Inspect all lead dress to make certain that leads are not pinched, and check that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Inspect all protective devices such as non-metallic control knobs, insulation materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.
 - Plug the AC cord directly into a 220~240 volt AC outlet.
 - Using two clip leads, connect a 50k ohm, 10 watt resistor paralleled by a 0.15 μ F capacitor in series with all exposed metal cabinet parts and a known earth ground, such as electrical conduit or electrical ground connected to an earth ground.
 - Use an AC voltmeter having with 5000 ohm per volt, or higher, sensitivity or measure the AC voltage drop across the resistor.

- Connect the resistor connection to all exposed metal parts having a return to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.

All checks must be repeated with the AC cord plug connection reversed. (If necessary, a nonpolarized adaptor plug must be used only for the purpose of completing these checks.)

Any reading of 0.75V peak (this corresponds to 0.5 mA. peak AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the monitor to the owner.



SAFETY NOTICE

Many electrical and mechanical parts in LCD television have special safety-related characteristics.

These characteristics are often not evident from visual inspection, nor can protection afforded by them be necessarily increased by using replacement components rated for higher voltage, wattage, etc.

Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "⚠"

and shaded areas in the **Replacement Parts Lists and Schematic Diagrams**.

For continued protection, replacement parts must be identical to those used in the original circuit.

The use of a substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire or other hazards.

Precautions for using lead-free solder

1 Employing lead-free solder

"MAIN PWB" of this model employs lead-free solder. The LF symbol indicates lead-free solder, and is attached on the PWBs and service manuals. The alphabetical character following LF shows the type of lead-free solder.

Example:

LFa

Sn-Ag-Cu

Indicates lead-free solder of tin, silver and copper.

2 Using lead-free wire solder

When fixing the PWB soldered with the lead-free solder, apply lead-free wire solder. Repairing with conventional lead wire solder may cause damage or accident due to cracks.

As the melting point of lead-free solder (Sn-Ag-Cu) is higher than the lead wire solder by 40°C, we recommend you to use a dedicated soldering bit, if you are not familiar with how to obtain lead-free wire solder or soldering bit, contact our service station or service branch in your area.

3 Soldering

As the melting point of lead-free solder (Sn-Ag-Cu) is about 220°C which is higher than the conventional lead solder by 40°C, and as it has poor solder wettability, you may be apt to keep the soldering bit in contact with the PWB for extended period of time. However, Since the land may be peeled off or the maximum heat-resistance temperature of parts may be exceeded, remove the bit from the PWB as soon as you confirm the steady soldering condition.

Lead-free solder contains more tin, and the end of the soldering bit may be easily corroded. Make sure to turn on and off the power of the bit as required.

If a different type of solder stays on the tip of the soldering bit, it is alloyed with lead-free solder. Clean the bit after every use of it.

When the tip of the soldering bit is blackened during use, file it with steel wool or fine sandpaper.

Be careful when replacing parts with polarity indication on the PWB silk.

Lead-free wire solder for servicing

Part No.	★	Description	Code
ZHNDai123250E	J	φ0.3mm 250g(1roll)	BL
ZHNDai126500E	J	φ0.6mm 500g(1roll)	BK
ZHNDai12801KE	J	φ1.0mm 1kg(1roll)	BM

SPECIFICATIONS

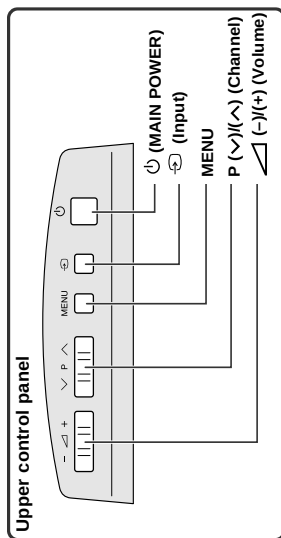
Items		Model	LC-13SH1E	LC-15SH1E
LCD panel			13" Advanced Super View & BLACK TFT LCD	15" Advanced Super View & BLACK TFT LCD
Number of dots			921,600 dots	
Video colour system			PAL/SECAM/NTSC	
TV	TV-Standard (CCIR)		B/G, I, D/K, L/L'	
	TV-Tuning System		Auto preset 200 ch.	
	STEREO/BILINGUAL		NICAM, A2 stereo	
	AUTO PRESET		YES	
	CATV		~Hyper Band	
Brightness			430 cd/m ²	
Viewing angles			H: 170° V: 170°	
Audio amplifier			2.1 W × 2	
Speakers			7.5 cm × 3 cm 2 pcs.	11 cm × 4 cm 2 pcs.
Terminals	EXT1		21-pin Euro-SCART	
	EXT2		S-VIDEO, VIDEO, AUDIO	
	OUT		AUDIO	
	Antenna		DIN	
	Headphones		3.5 mm ø jack (side)	
OSD language			English/Spanish/German/French/Italian/Swedish/Dutch/Russian/Portuguese/ Turkish/Greek/Finnish/Polish	
Power requirement			AC 220 V–240 V, 50/60 Hz	
Power consumption			55 W (1.0 W Standby) AC 220 V–240 V	59 W (1.0 W Standby) AC 220 V–240 V
Weight (approx.)			3.6 kg, w/o accessories	4.1 kg, w/o accessories

■ As a part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

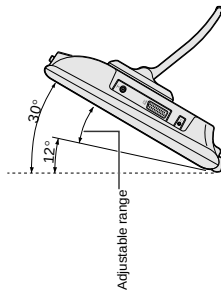
Part Names of the Main Unit

The examples used throughout this manual are based on the LC-20SH1E model.

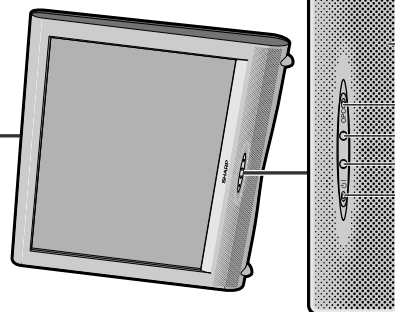
Controls



How to adjust the angle



The screen angle can be tilted backwards between 12 and 30 degrees. (It cannot be set to vertical.) When changing the angle, make sure to hold the stand and adjust the screen to the best viewable angle.



—
Speaker

OPC (Optical Picture Control) indicator

OPC (Optical Picture Control) Indicator
The OPC indicator lights up green when the "Backlight" is set to "Auto (OPC)".

OPC sensor

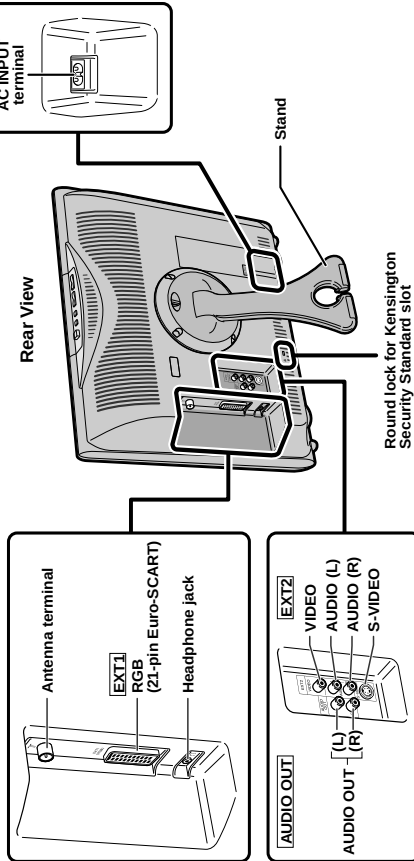
Remote sensor

STANDBY/ON indicator — STANDBY/ON indicator lights up green when the power is on, and red when in the standby mode (the indicator will not light when the main power is off).

NOTE

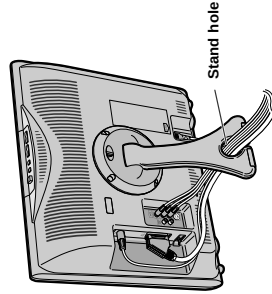
-  **(Input)**,  **P**,  **V**,  **(Channel)**,  **(Volume)** and **MENU** on the control panel of the main unit have the same functions as the same buttons on the remote control. Fundamentally, this operation manual provides a description based on operation using the remote control.

Terminals



How to Fix the Cables

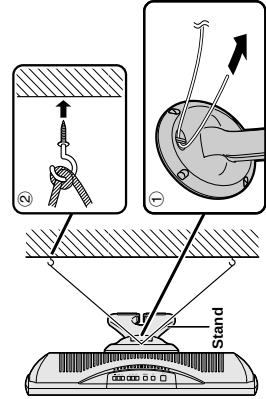
Pull the cables connected to each terminal. Insert the cables into the stand hole and fix the cables.

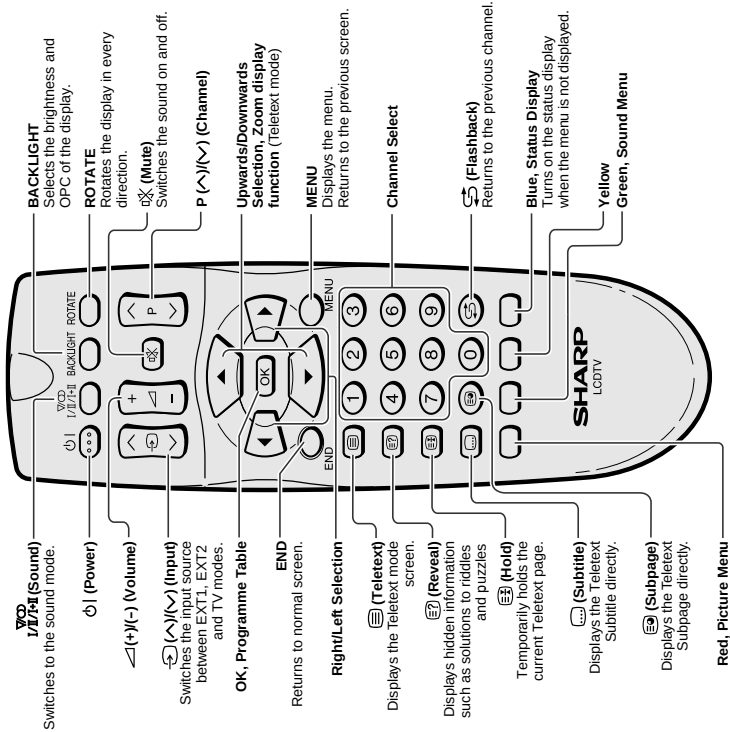


How to Prevent the LCD TV Set from Falling Over

To prevent the LCD TV set from falling over in case of earthquakes and so on, strap it onto the wall by threading one end of the string through the loop of the stand (①) and fastening the LCD TV set with the string attached to the hook on the wall or the post, etc. (②).

- The string and hook are commercially available.





Installing Batteries in the Remote Control

Before using the LCD TV set for the first time, install the two "AA" size batteries (supplied) in the remote control. When the batteries become depleted and the remote control fails to operate, replace the batteries with new "AA" size batteries.

- 1 Open the battery cover.
 - 2 Insert two "AA" size batteries.
 - 3 Close the battery cover.
- Detach the cover while pressing the (▼) part.
 - Place batteries with their terminals corresponding to the (+) and (-) indications in the battery compartment.
 - Align the tab on the battery cover (1) and place it while pressing the tab (2) to close it.

Caution!

Precautions regarding batteries

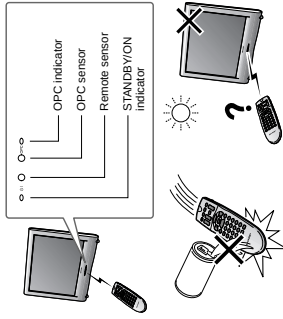
- Improper use of batteries can result in a leakage of chemicals and/or explosion. Be sure to follow the instructions below.
- Place batteries with their terminals corresponding to the (+) and (-) indications.
- Different types of batteries have different characteristics. Do not mix batteries of different types.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries and/or cause old batteries to leak chemicals.
- Remove batteries as soon as they are depleted. Chemicals that leak from batteries can cause a rash. If chemical leakage is found, wipe it off with a cloth.
- The batteries supplied with the LCD TV set may have a shorter operating time due to storage conditions.
- If the remote control is not to be used for an extended period of time, remove the batteries from the remote control.

Using the Remote Control

Use the remote control by pointing it towards the remote sensor window of the main unit. Objects between the remote control and sensor window may prevent proper operation.

Cautions regarding use of the remote control

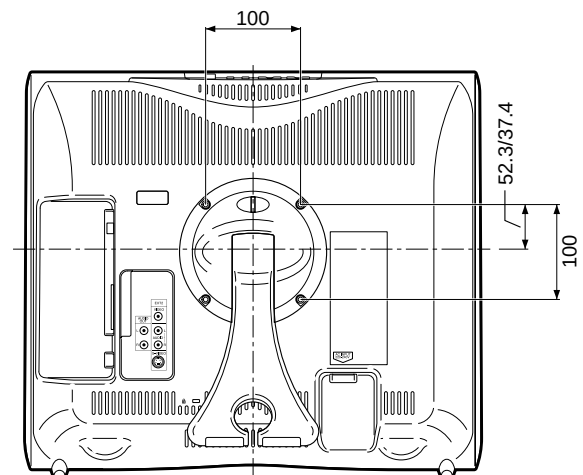
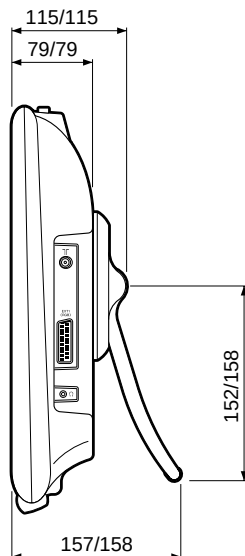
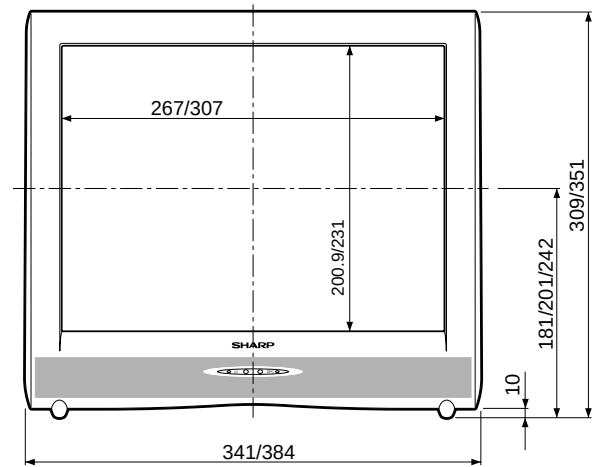
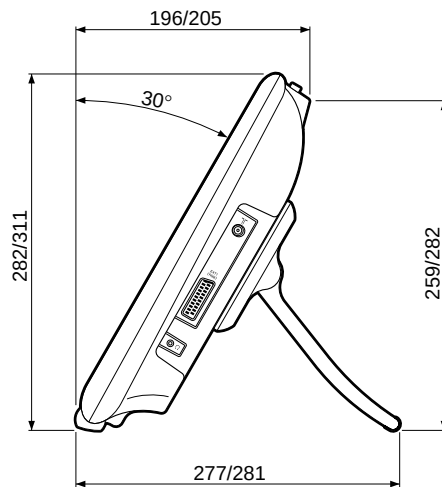
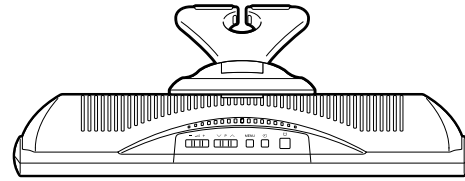
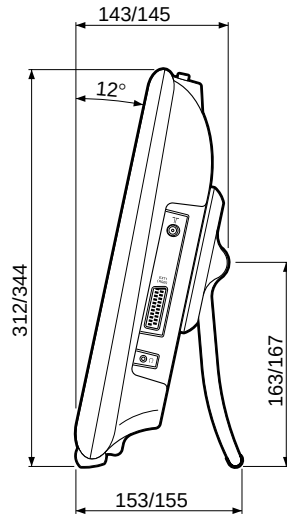
- Do not apply shock to the remote control. In addition, do not expose the remote control to liquids, and do not place it in an area with high humidity.
- Do not install or place the remote control under direct sunlight. The heat may cause deformation of the unit.
- The remote control may not work properly if the remote sensor window is under direct sunlight or strong lighting. In such a case, change the angle of the lighting or main unit, or operate the remote control closer to the remote sensor window.



DIMENSIONS

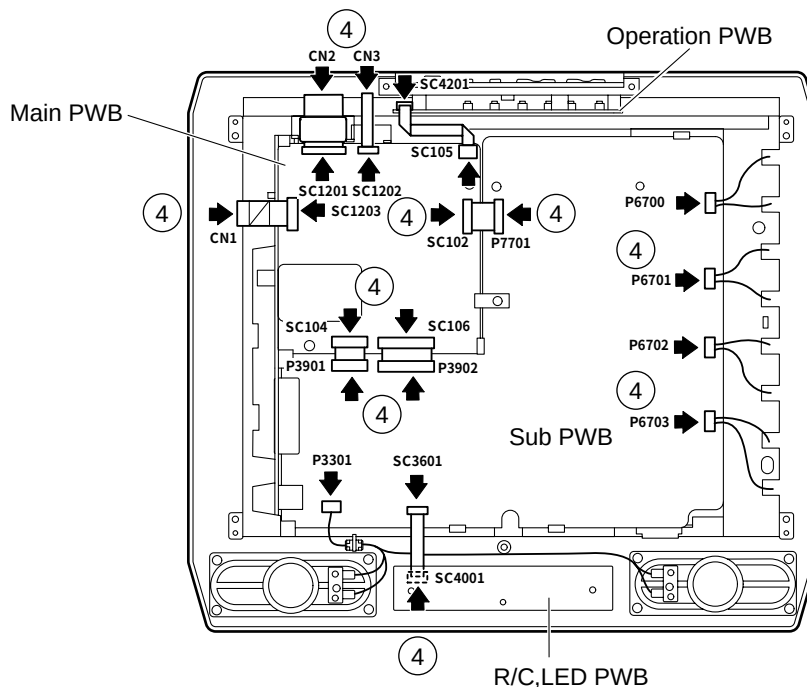
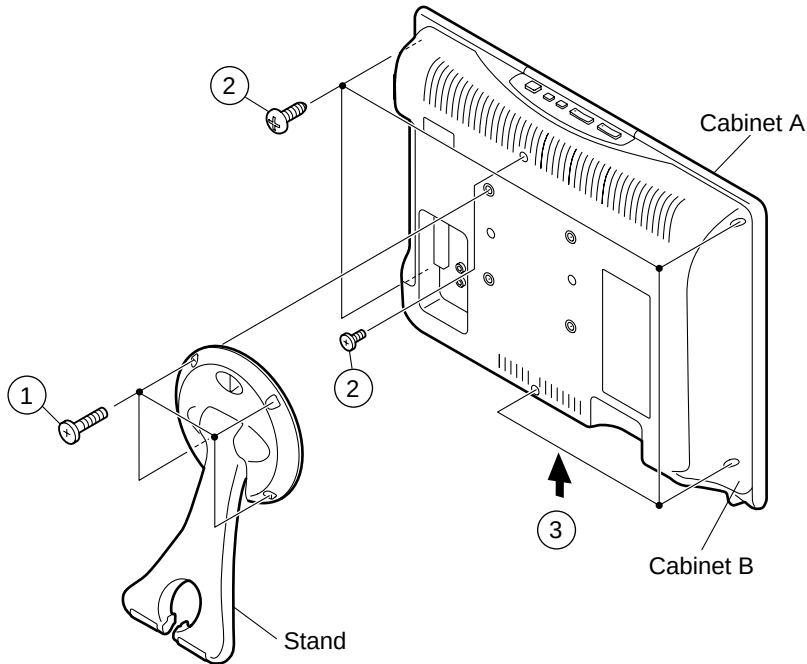
■ LC-13SH1E/LC-15SH1E

Unit: mm

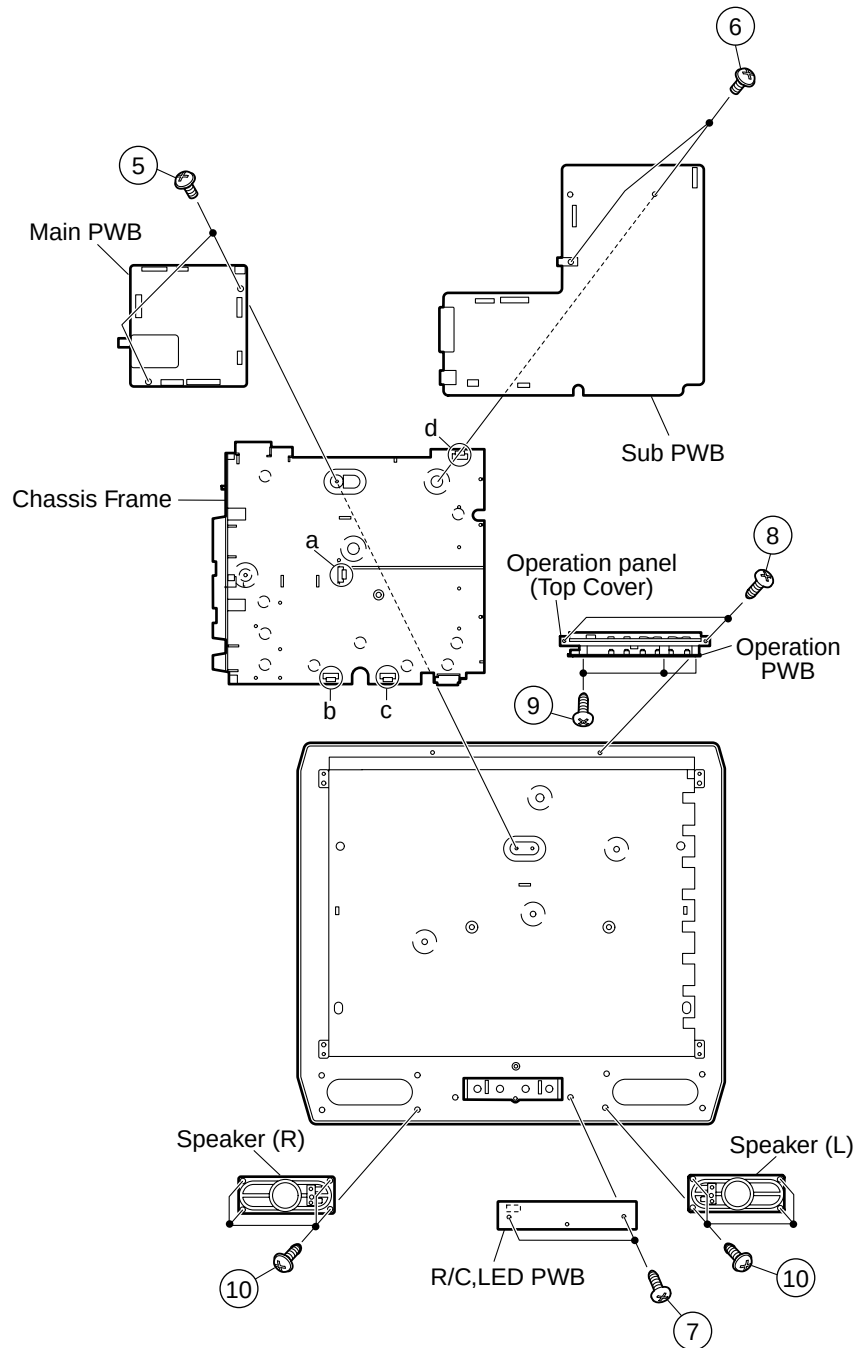


REMOVING OF MAJOR PARTS

1. Remove the stand fixing screws (4 pcs.).
2. Remove the cabinet B fixing screws (6 pcs.).
3. Remove the cabinet B after opening from the direction of an arrow.
4. Detach the connector from each PWB.



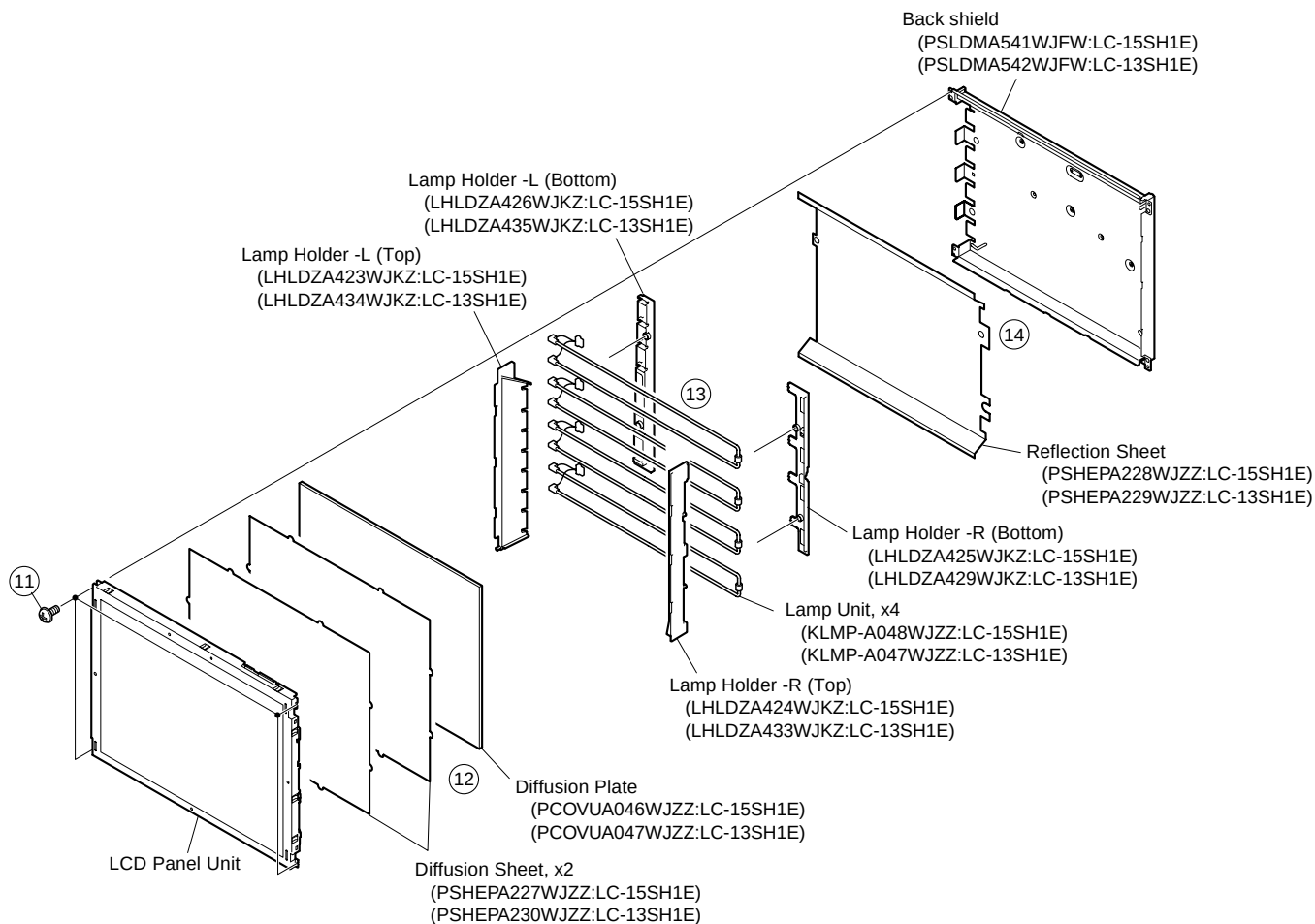
5. Remove the 2 lock screws from the main PWB and undo the hooks a. Detach the chassis frame, together with its terminals, from the main PWB.
6. Remove the 2 lock screws from the sub PWB and undo the hooks b, c and d. Detach the chassis frame together with its terminals, from the sub PWB.
7. Remove the 2 lock screws from the R/C, LED PWB and take out the R/C, LED PWB.
8. Remove the 2 lock screws from the operation panel (top cover), and detach the operation panel (top cover).
9. Remove the 3 lock screws from the operation PWB, and detach the operation PWB.
10. Remove the 4 lock screws each from the right and left speakers and take out both the speakers.



● Precautions in handling the LCD panels

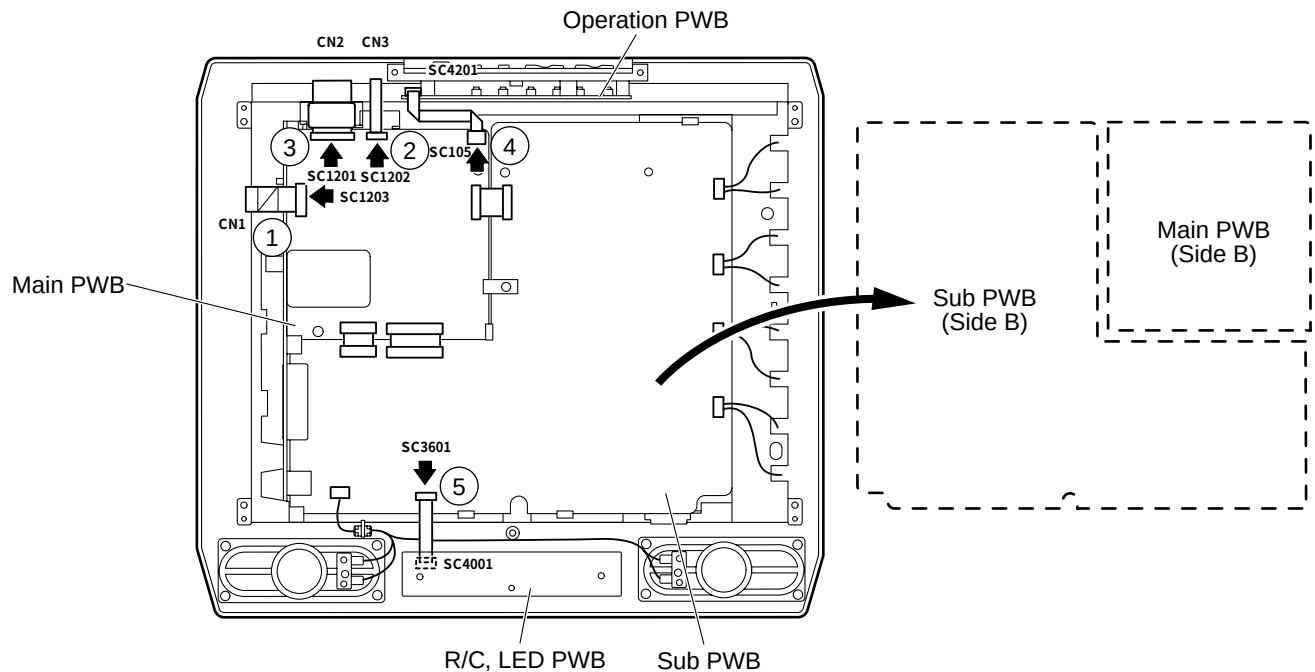
1. Work in a clean room (with humidities below 50%).
2. Be sure to wear an anti-static armband.
3. Handle the panels on an electro-conductive mat.
4. Be careful not to fall, shake and shock the panels.

11. Remove the 4 lock screws from the LCD panel and detach the LCD panel.
12. Remove the diffusion sheets and diffusion plate.
13. Detach the lamp holders -R (top), -L (top) and -R (bottom), -L (bottom) from the lamp unit.
14. Detach the reflection sheet from the back shield.



● **Precautions at the time of the side B(back) service of main and sub unit.**

1. Remove only SC1203 of the FFC for connection between Main unit (SC1203) and LCD panel, and connect the extended cable (QCNW-A553WJZZ) for service.
2. Remove only SC1202 of the FFC for connection between Main unit (SC1202) and LCD panel, and connect the extended cable (QCNW-B556WJZZ) for service.
3. Remove only SC1201 of the FFC for connection between Main unit (SC1201) and LCD panel, and connect the extended cable (QCNW-A555WJZZ) for service.
4. Remove only SC105 of the FFC for connection between Main unit (SC105) and Operation unit (SC4201), and connect the extended cable (QCNW-D444WJQZ) for service.
5. Remove only SC3601 of the FFC for connection between Sub unit (SC3601) and R/C, LED unit (SC4001), and connect the extended cable (QCNW-D445WJQZ) for service.
6. Remove the PWB unit fixing screws (main unit : 2pcs, sub unit : 2pcs., inverter unit : 3pcs.)



Step	Part No.	Description
1	QCNW-A553WJZZ	Extension Cable 30-pin Main (SC1203)-LCD Panel
2	QCNW-A556WJZZ	Extension Cable 50-pin Main (SC1202)-LCD panel
3	QCNW-A555WJZZ	Extension Cable 20-pin Main (SC1201)-LCD panel
4	QCNW-D444WJQZ	Extension Cable 5-pin Operation (SC4201)-Main (SC105)
5	QCNW-D445WJQZ	Extension Cable 8-pin R/C, LED (SC4001)-Sub (SC3601)

ADJUSTING PROCEDURE OF EACH SECTION

The best adjustment is made before shipping. If any position deviation is found or after part replacement is performed, adjust as follows.

Preparation for adjustments

Use a stable AC power source.

LC-13/15SH1E AC Power : 230V

1. Adjusting procedure

Complete Set → Power ON → Enter Adjustment Process Mode → RF AGC adjustment → DCXO adjustment → Common Bias adjustment → White Balance adjustment

2. Entering the adjustment process mode

- After power on, press the adjustment process mode key on the service remote control.
 - Switching on the TV set, holding pushed the "Input" and "Volume (–)" Key at once, the TV set enters in the "K" mode.
- In this condition, pushing "Volume (–)" and "P (✓)" Key, the adjust mode appears.

3. Key operation in the adjustment process mode

- Use the "UP" or "DOWN" cursor key to select the adjustment mode item.
- Use the "LEFT" or "RIGHT" cursor key to change the data.

4. Initialization

When the EEPROM (IC101) has been replaced or when the EEPROM has been initialized, readjust the each adjust the each adjustments.

4-1. When the EEPROM has been replaced:

- 1) Plug in the AC cord to an AC power outlet and turn on the power.
- 2) When the setting is finished, the LED turns from red to green. In about 15 seconds, the initialization is completed.

4-2. When initializing the EEPROM data and making readjustments:

- 1) Enter the Adjustment Process mode.
- 2) Select the INIT TV item and press the "RIGHT" cursor key to enable the item.
- 3) Unplug the power cable and plug it again in the AC power outlet. Turn on the power.
- 4) When the setting is finished, the LED turns from red to green. In about 5 seconds, the initialization is completed.

<Note>

When the INIT TV item has been enabled in the adjustment process, be sure to unplug the power cable and plug it in again. Then start adjustments. Otherwise the readjusted data cannot be put in memory.

4-3. Setting the screen size (inches)

- 1) Enter the Adjustment Process mode.
- 2) Check the model number.
- 3) Hold down the "LEFT" or "RIGHT" cursor key longer than 2 seconds, and select the inch size (13):(LC-13SH1E) and (15):(LC-15SH1E).

SH1E	Main Ver	* **
	Scaler Ver	* ** *
INCH SIZE		15

5. Adjustment

5-1. RF AGC adjustment

- 1) Feed the colour bar signal.
- 2) In Adjustment Mode, select the RF AGC AUTO ("OFF") and press the " RIGHT" cursor key to start the adjustment.
- 3) Automatic adjustment is complete when it display "OK" is displayed.
- 4) RF AGC data will be in the range of 0-63. If "NOK" is displayed, adjustment failed.

SH1E	Main Ver	* **	
	Scaler Ver	* ** *	
RF AGC AUTO		OK	RF AGC Auto adjustment complete
		38	RF AGC data (Example)

5-2. DCXO adjustment

- 1) Feed the colour bar signal.
- 2) In Adjustment Mode, select the DCXO AUTO ("OFF") and press " RIGHT" cursor key to start the adjustment.
- 3) Automatic adjustment is complete when "OK" is displayed. If "NOK" is displayed, adjustment failed.

SH1E	Main Ver	* **	
	Scaler Ver	* ** *	
DCXO AUTO		OK	DCXO Auto adjustment complete
		**	DCXO data

5-3. Common bias adjustment

- 1) Select the EXT-Video input and without signal.
- 2) In Adjustment Mode, select the COM BIAS and vary the data until the contrast becomes the sharpest.
(Black looks most sinking.)

5-4. White balance adjustment

[A] White balance pre-adjustment

- 1) Feed the 100% white signal.
- 2) In Adjustment Mode, select the AWBSD ("OFF") and press the " RIGHT" cursor key to start the adjustment.
- 3) Automatic adjustment is complete when "OK" is displayed.

[B] White balance adjustment

Adjust "R CUTOFF2", "G CUTOFF2", "B CUTOFF2", "WB R GAIN", "WB G GAIN" and "WB B GAIN" in the adjustment processing to obtain the same colour as the standard set.

6. Factory setting

6-1. Make the factory setting using the adjustment remote control.

Model	Key Name	Remote Control Code				OSD Language Setting	
A3IK13/15SH1E	Shipment Setting 1	1000	0011	1111	110	German	(00001 FEh)
A3IK13/15SH1K	Shipment Setting 2	1000	0000	1010	110	English	(00002 A8h)
A3IK13/15SH1R	Shipment Setting 3	1000	0110	1011	110	Russian	(00003 EBh)
A3IK13/15SH1F	Shipment Setting 4	1000	0100	1011	110	French	(00004 E9h)
A3IK13/15SH1I	Shipment Setting 6	1000	0000	1011	110	Italian	(00005 E8h)

6-2. Different factory settings.

Model	Language	Country	Color System	Sound System
A3IK13/15SH1E	German	Germany	PAL	B/G
A3IK13/15SH1K	English	UK	PAL	I
A3IK13/15SH1R	Russian	Russia	SECAM	D/K
A3IK13/15SH1F	French	France	SECAM	L/L'
A3IK13/15SH1I	Italian	Italy	PAL	B/G

7. Lamp error detection

7-1. Functional description

This LCD colour television has a function (lamp error detection) to be turned OFF automatically for safety when the lamp or lamp circuit is abnormal.

If the lamp or lamp circuit is abnormal, or some other errors happen, and the lamp error detection is executed, the followings occur.

- ① The main unit of television is turned OFF 5 seconds after it is turned ON. (The power LED on the front side of TV turns from green to red.)
- ② If the situation ① happens 5 times sequentially, television can not be turned ON. (The power LED remains red.)

7-2. Countermeasures

7-2-1. Check when turning OFF the lamp error detection

If the power has been turned off 5 times because of lamp error, hold down the unit's "INPUT" and "Volume (-)" key simultaneously and turn on the unit's power switch. The TV set gets back on power in the "K" mode.

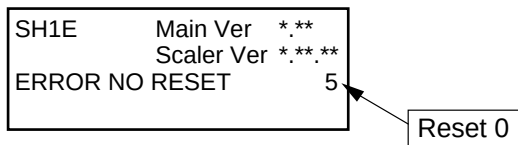
In this state, press the unit's "Volume (-)" and "P (✓)" key simultaneously. The Adjustment Process mode shows up.

This enables the operation check to detect errors in the lamp or lamp circuit.

Check whether "ERROR NO RESET" of the adjustment process is 1 or more. If it is 1 or more, it indicates the lamp error detection was executed.

7-2-2. Resetting of the lamp error count

After confirming that the lamp or lamp circuit is normal, reset the lamp error count. Select "ERROR NO RESET" of the adjustment process and set the number to 0 using the "LEFT" or "RIGHT" cursor key.



Afterwards, perform the operation check to confirm that the lamp error detection does not function.

8. Hotel mode

8-1. How to enter the Hotel mode.

- 1) Turn on the power and enter the Adjustment Process mode.
- 2) Using the "UP" or "DOWN" cursor key on the remote controller, select the Hotel mode.
- 3) Using the "RIGHT" cursor key on the remote controller, change the setting from "0" to "1". Now the Hotel mode shows up.

Adjustment Process menu

• <u>Hotel mode = "0"</u>	• <u>Hotel mode = "1"</u>
↓	↓
Hotel mode 0	Hotel mode 1
↓	↓
EXT CONTROL OFF	Max. volume **
↓	↓
↓	On program ***
	↓
	EXT CONTROL OFF
	↓
	↓

- 4) Using the "UP" or "DOWN" cursor key on the remote controller, select "Max. volume" and "On program". Make the setting with the "LEFT" or "RIGHT" cursor key.
- 5) Finally quit the Adjustment Process mode and turn off the power. The TV set comes on in the Hotel mode after the next switch-on.

8-2. Hotel mode settings

- 1) Max. volume (0-60)
You can set the maximum volume at your desired level.
- 2) On program (0-199)
You can select a desired channel when switching on the TV set.

8-3. Canceling the Hotel mode

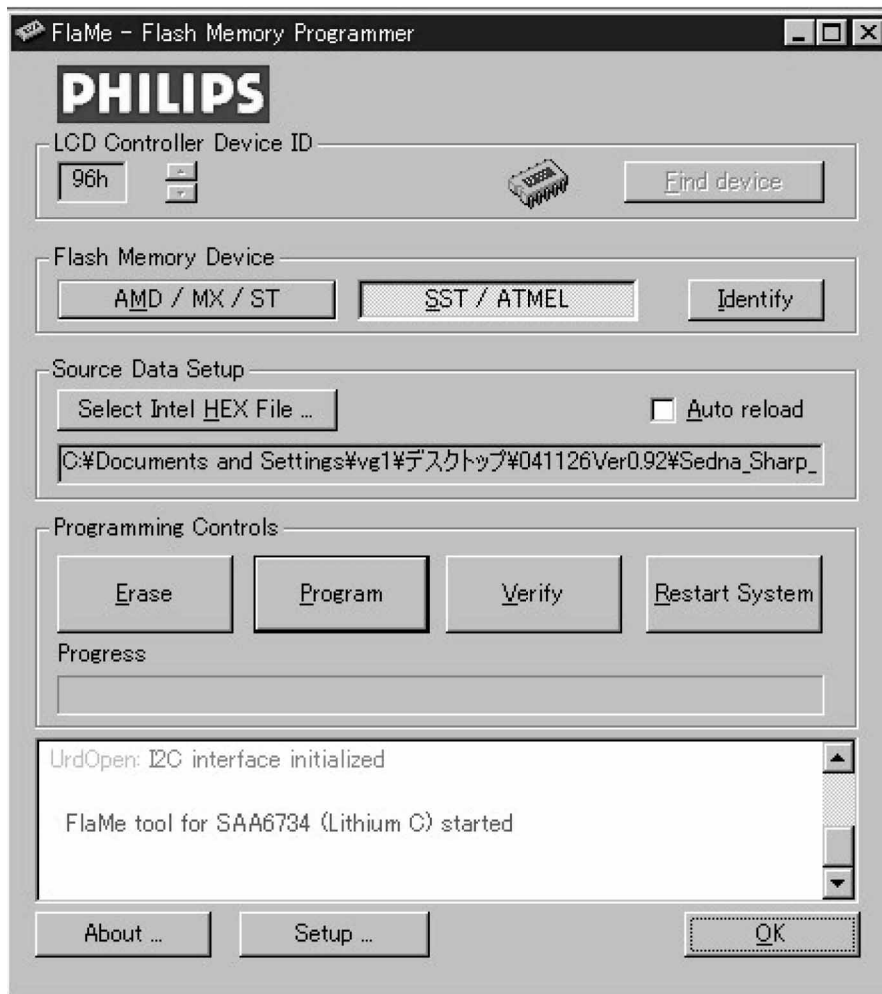
- 1) Turn on the power and enter the Adjustment Process mode.
- 2) Using the "UP" or "DOWN" cursor key, select the Hotel mode.
- 3) Using the "LEFT" cursor key, change the setting from "1" to "0".
- 4) Finally quit the Adjustment Process mode and turn off the power. The TV set comes on out of the Hotel mode after the next switch-on.

9. Software Loading

- 1) Upgrading the software or after replacement of IC151, IC501 or Main PWB, make sure to upload the processors with updated software.
- 2) Please use the dedicated Interface JIG (JIGINF-001) and supplied programs for upgrading the software.
- 3) This model employs two software;
 - SCALER microprocessor software
 - MAIN microprocessor software
 Please upload the SCALER microprocessor software first follow by MAIN microprocessor software.

1. SCALER microprocessor

- 1) Set Interface JIG switch to position "SCALER".
- 2) Power ON the set and plug Interface JIG connector to P2002.
- 3) Run the ISP_Tool.exe program.



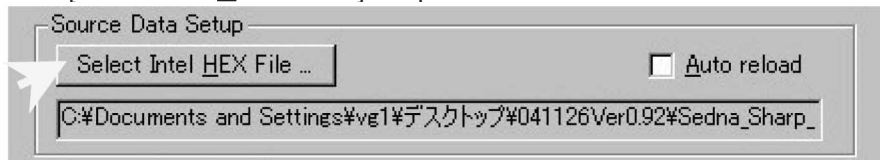
- 4) First click [SST / ATMEL] and then follow by [Identify] to identify the flash memory.



Confirm the item below in Comment Window.



- 5) Click [Select Intel HEX File ...] to open the source files. The source file name are "Sedna_Sharp****.hex"



Confirm the source file is loaded correctly.

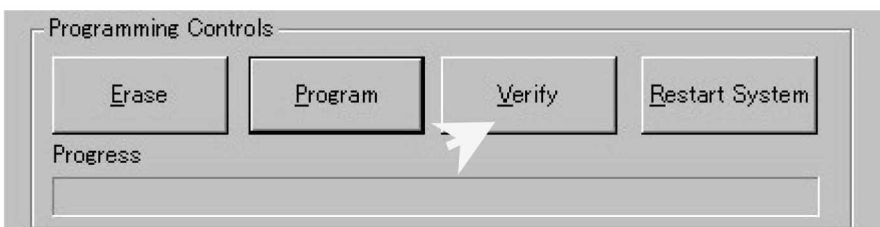
- 6) Next click the [Erase] to erase all the data in the flash memory. Confirm the erase process is complete without any error.



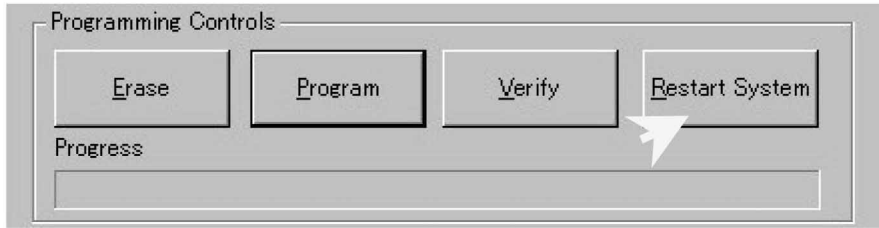
- 7) Then click [Program] to start uploading the source file into the flash memory. After uploading process is complete, confirm there are no error.



- 8) Click [Verify] to verify the uploaded data and confirm there are no error.



9) Finally click [Restart System] to initialize. Confirm "Reset done" in Comment Window.

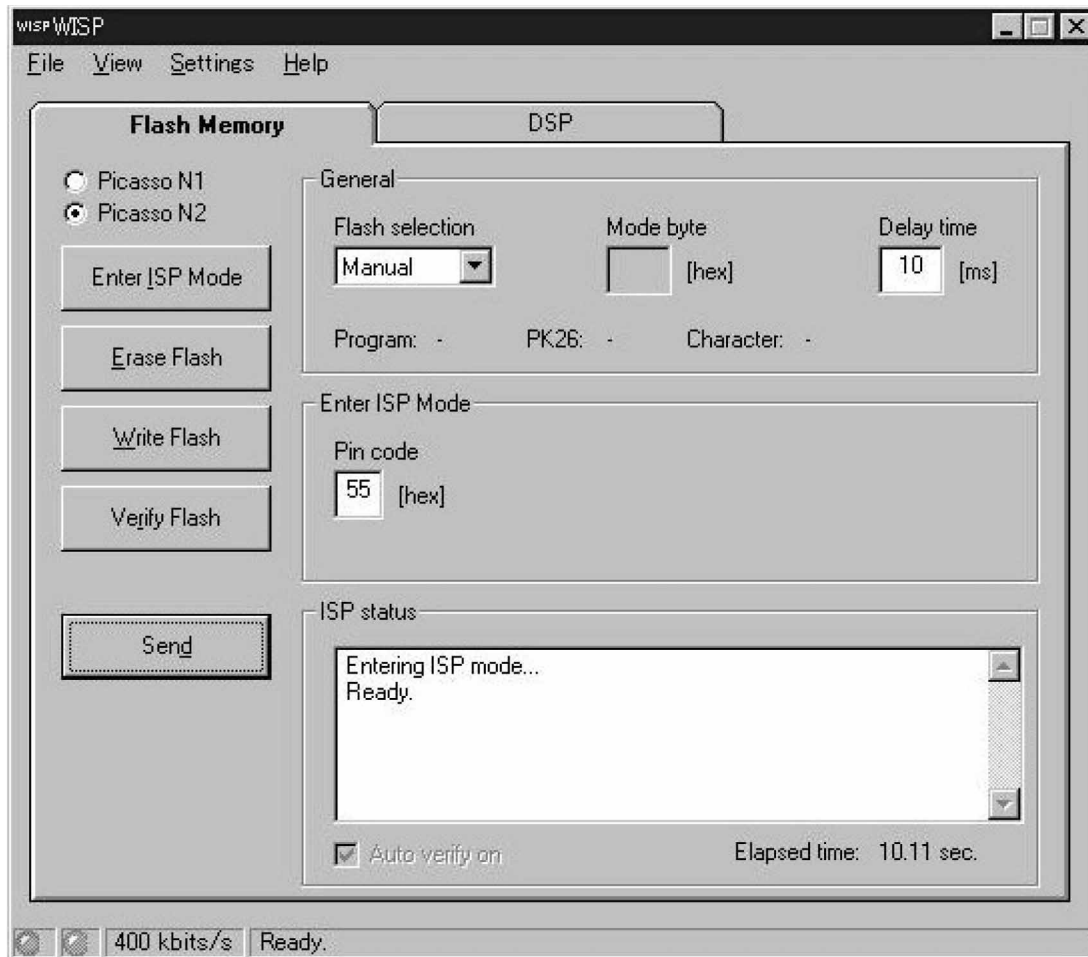


10) Power OFF the set by unplugging AC Cord, remove the JIG from the plug and wait for 1 minute before power ON again.

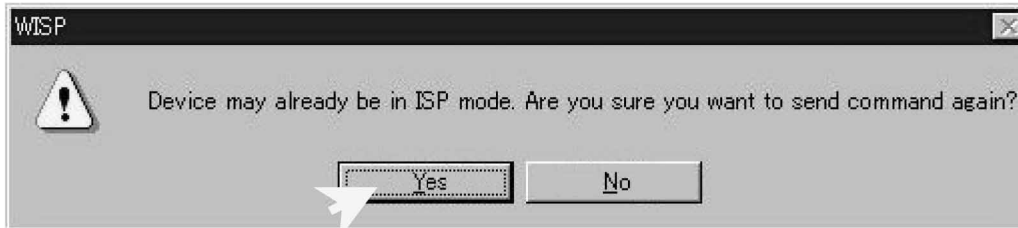
Notes: If any error occur during any process, power OFF the set and repeat the all the process again. If these still fail, please erase Main Software and repeat the whole process again. To erase Main software, please refer to MAIN microprocessor step No. 1) to 5) only.

2. MAIN microprocessor

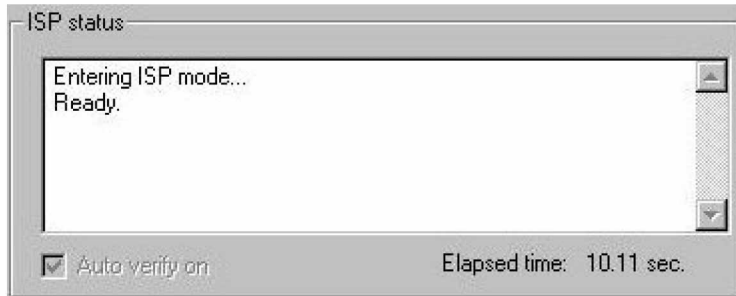
- 1) Set JIG switch to position "LOC".
- 2) Power ON the set and plug Interface JIG connector to P2002.
- 3) Run the WISP.exe program.



- 4) First click [Enter_ISP Mode] then click [Send]. If the following window appear, click [Yes]

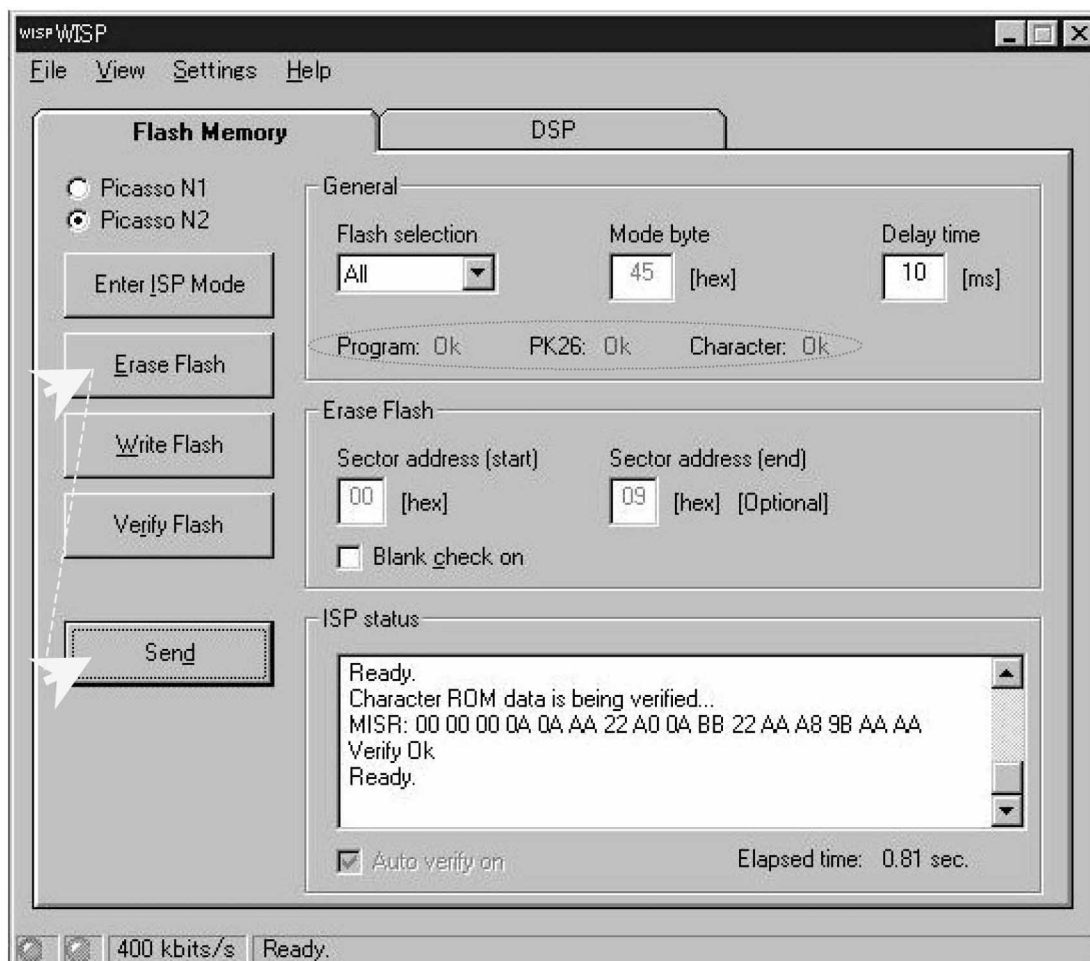


Confirm ISP status "Ready".



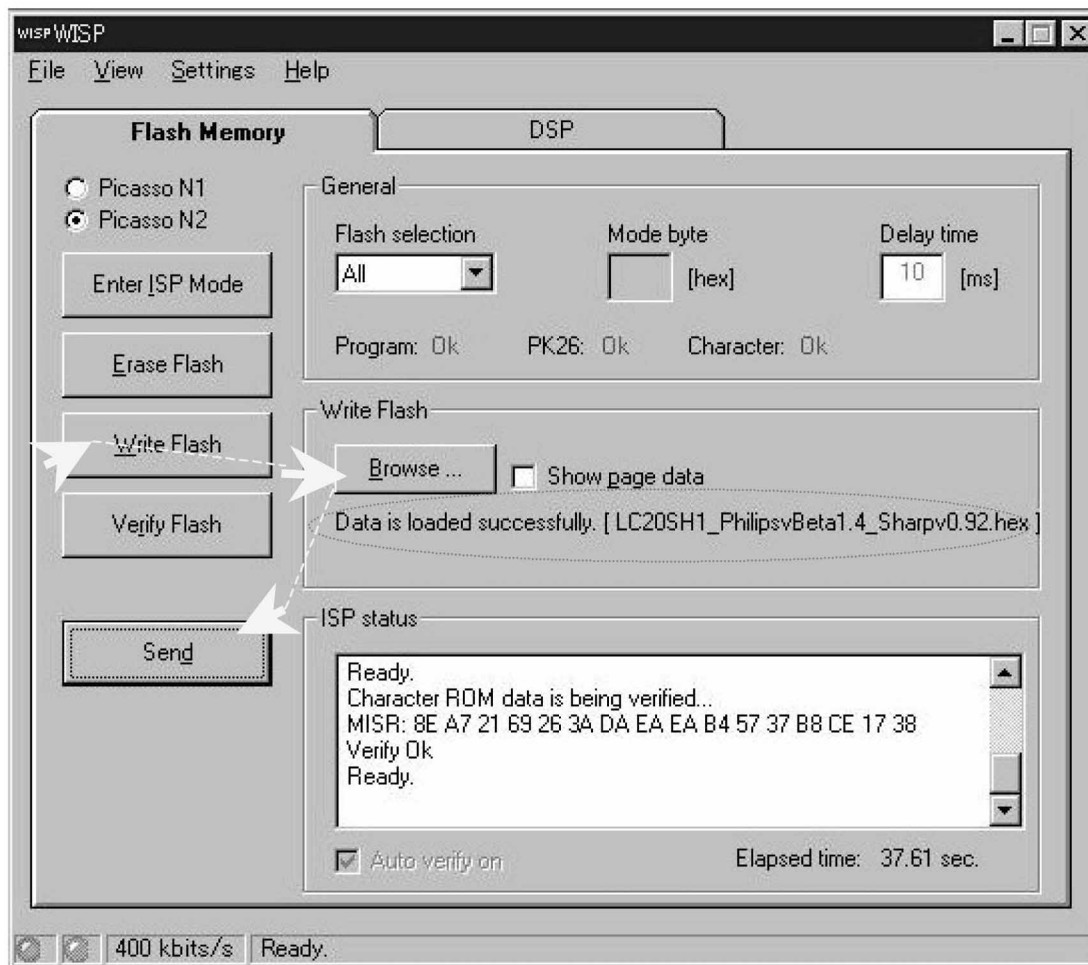
If "Entering ISP is not successful" occur, repeat step No. 4) again. If still fail, unplug the AC cord and repeat from step No. 2) again.

- 5) Then click [Erase Flash], follow by [Send]. Confirm the Program, PK26 & Character are all "OK" and ISP status is "Ready".



If "Failed" occur, unplug the AC cord and repeat the whole process again from beginning.

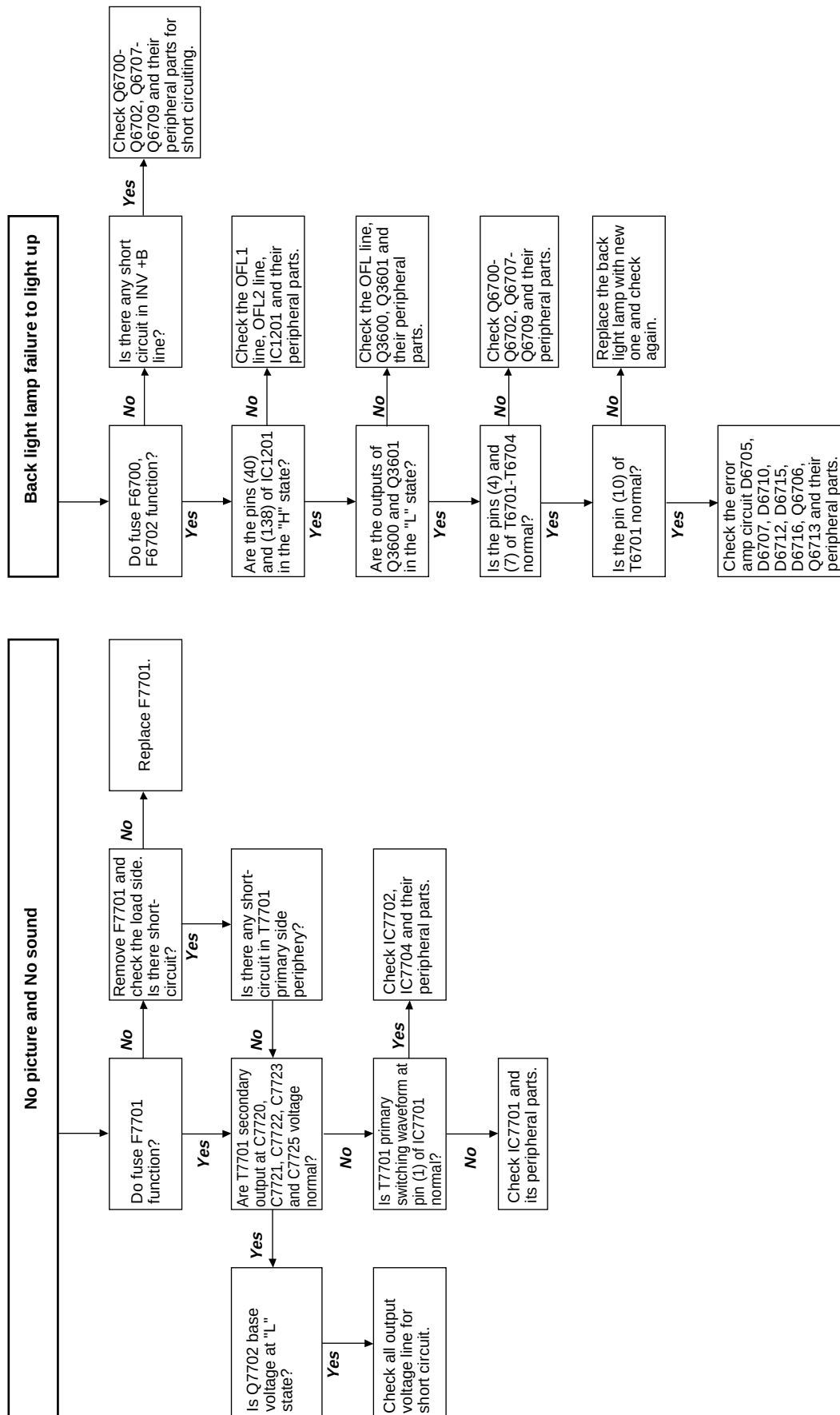
- 6) Next click [Write Flash] and load the source file by clicking [Browse]. The source file name are "LC20SH1_****.hex". Once the data is loaded successfully click [Send]. Confirm the Program, PK26 & Character are all "OK" and ISP status is "Ready".



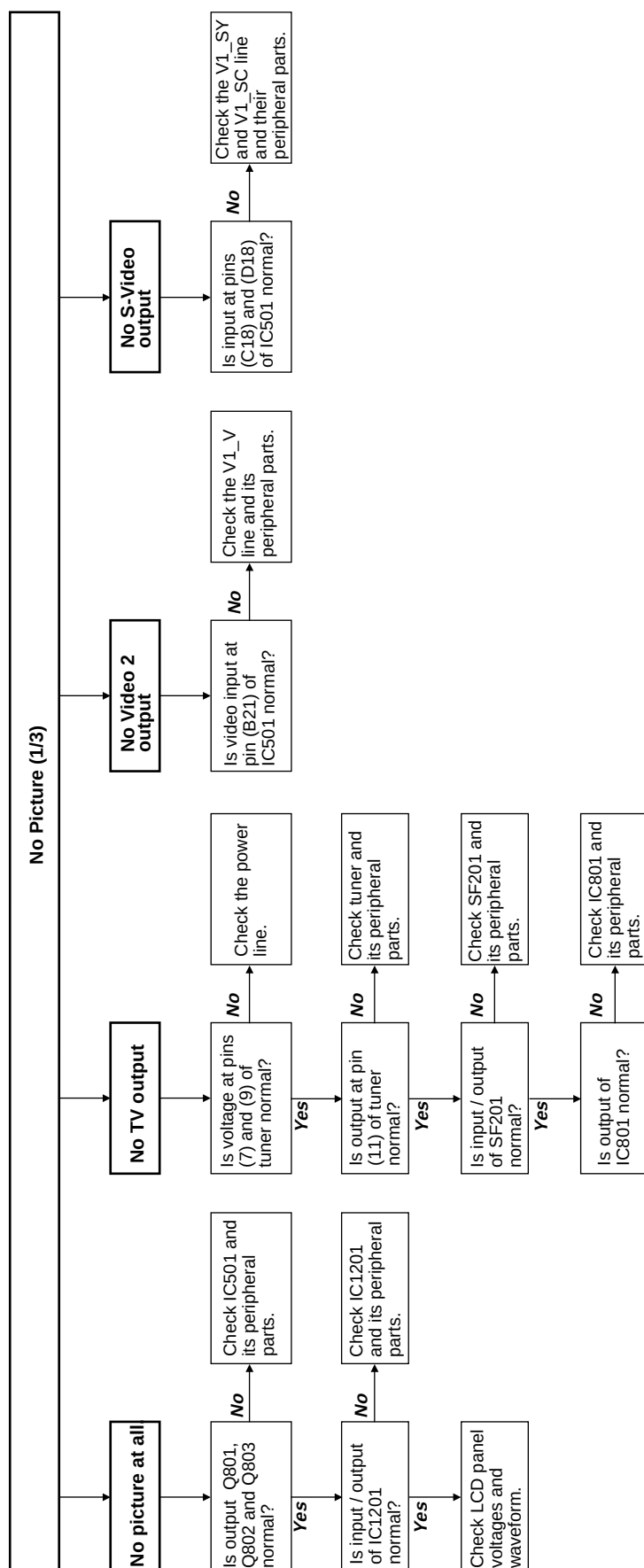
If "Failed" occur, unplug the AC cord and repeat the whole process again from beginning.

- 7) Finally click [Verify Flash] and [Send] to verify the flash memory. Confirm the Program, PK26 & Character are all "OK" and ISP status is "Ready". If "Failed" occur, unplug the AC cord and repeat the whole process again from beginning.
- 8) Power OFF the set and remove the JIG.

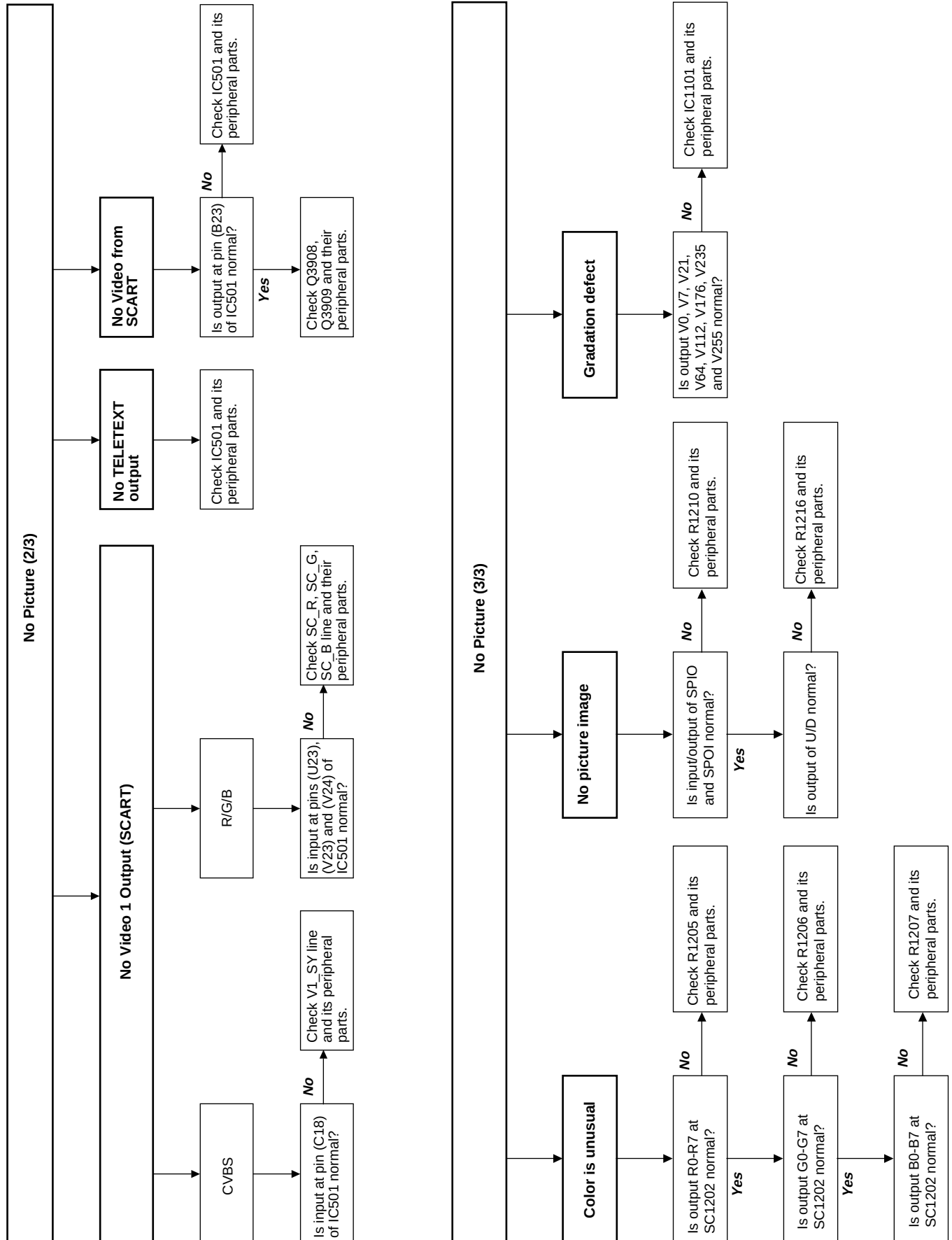
TROUBLE SHOOTING TABLE



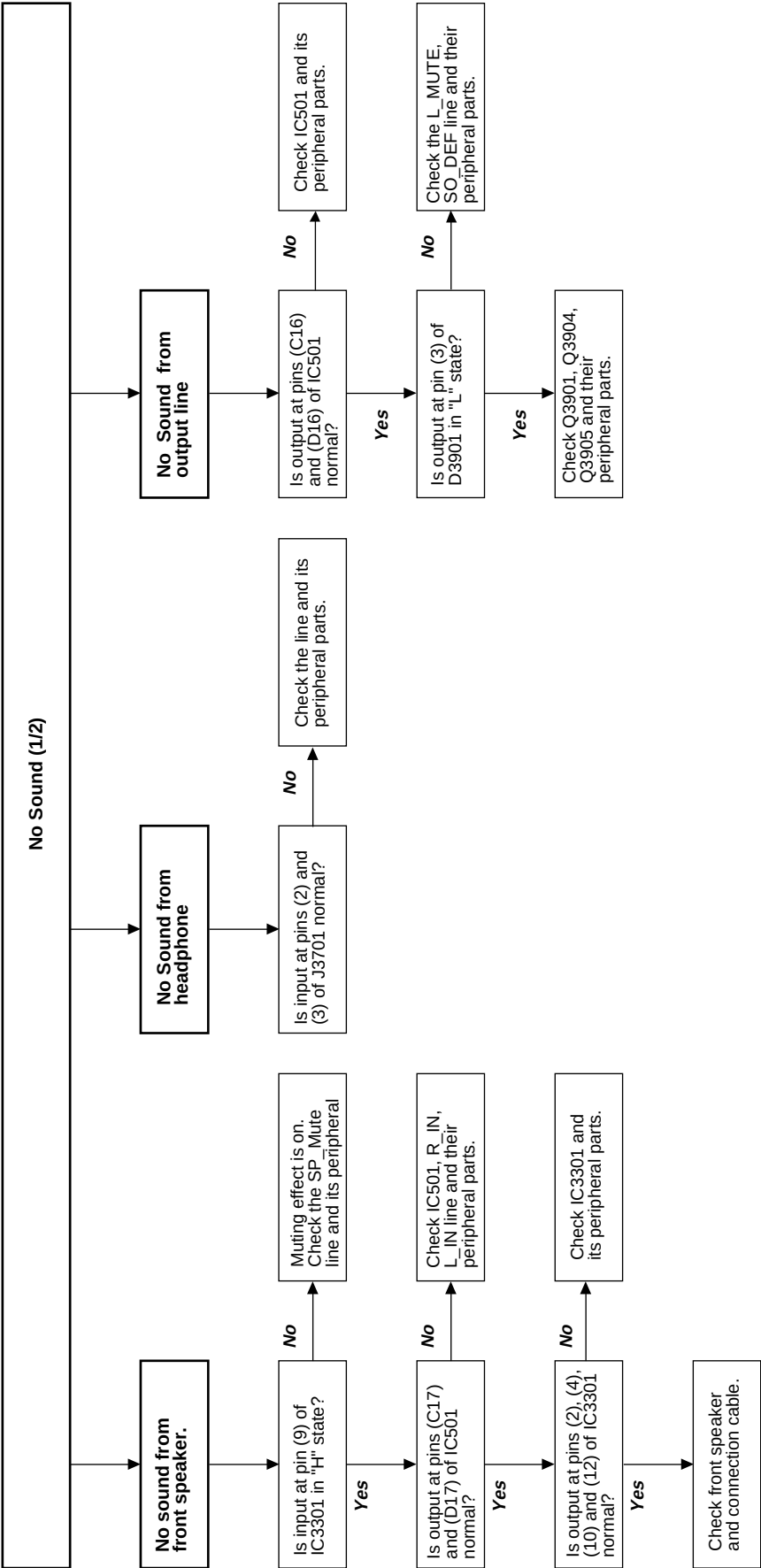
TROUBLE SHOOTING TABLE (Continued)



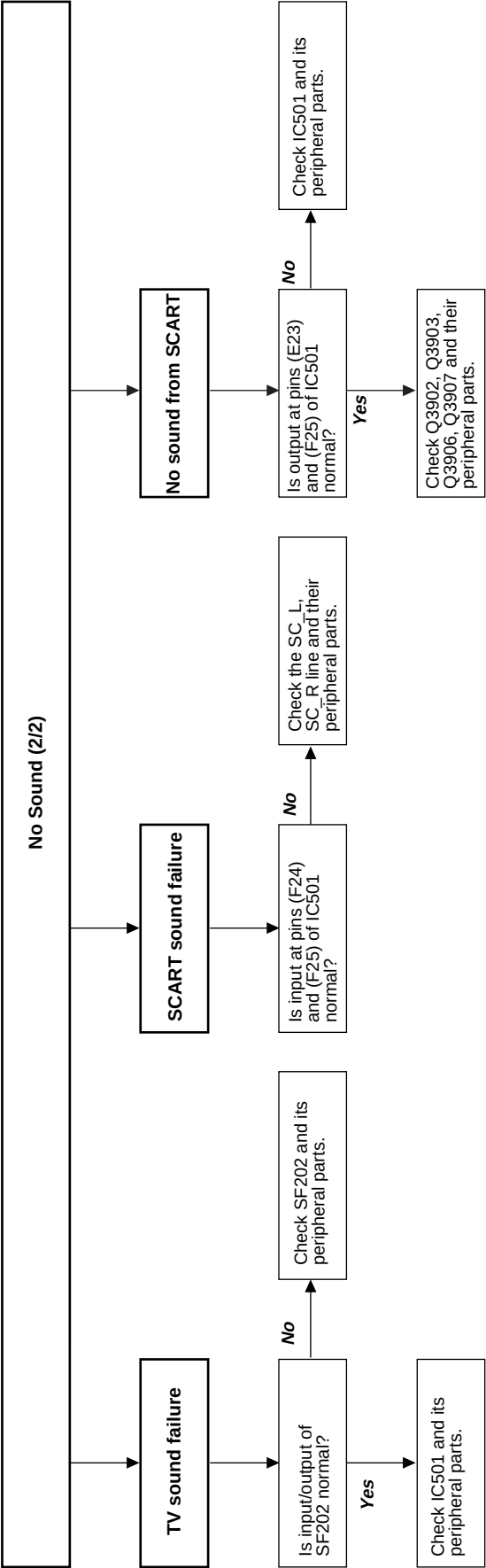
TROUBLE SHOOTING TABLE (Continued)



TROUBLE SHOOTING TABLE (Continued)

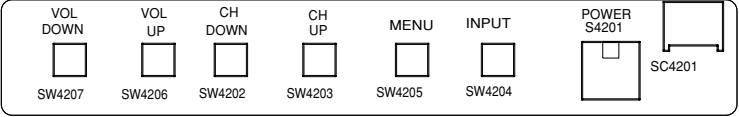


TROUBLE SHOOTING TABLE (Continued)

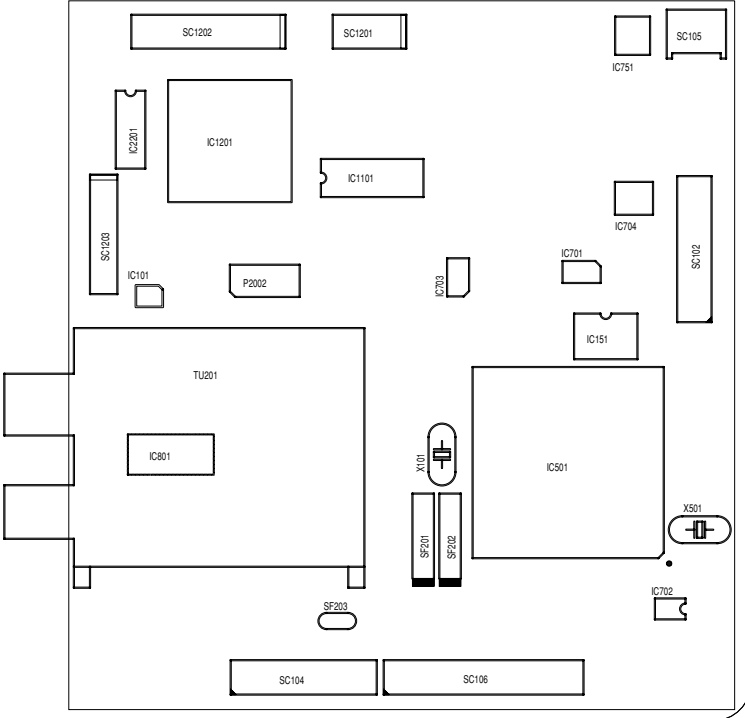


CHASSIS LAYOUT

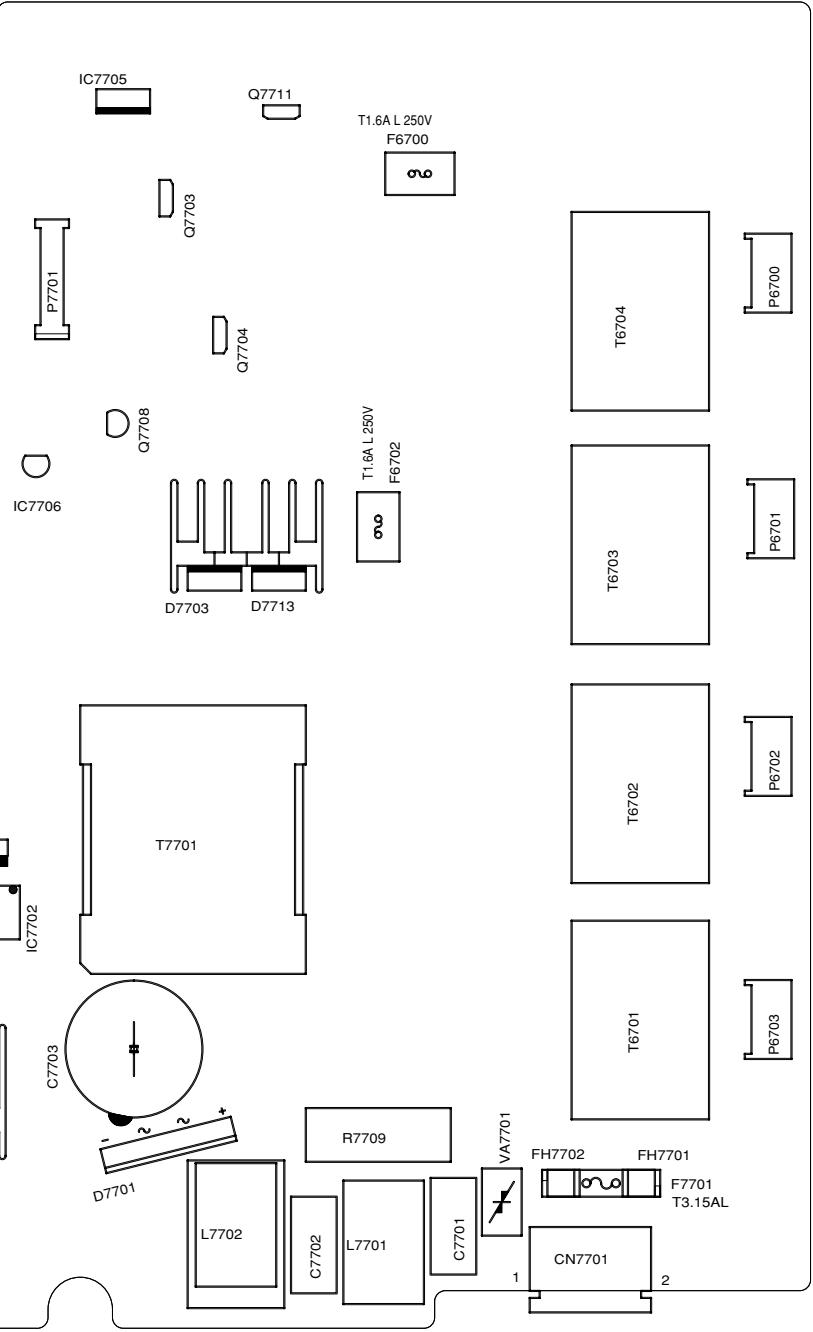
OPERATION Unit



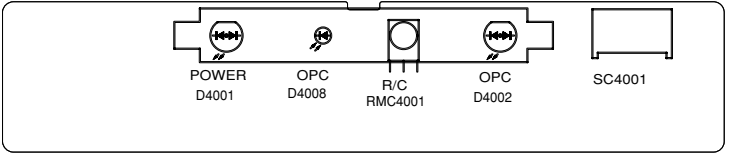
MAIN Unit



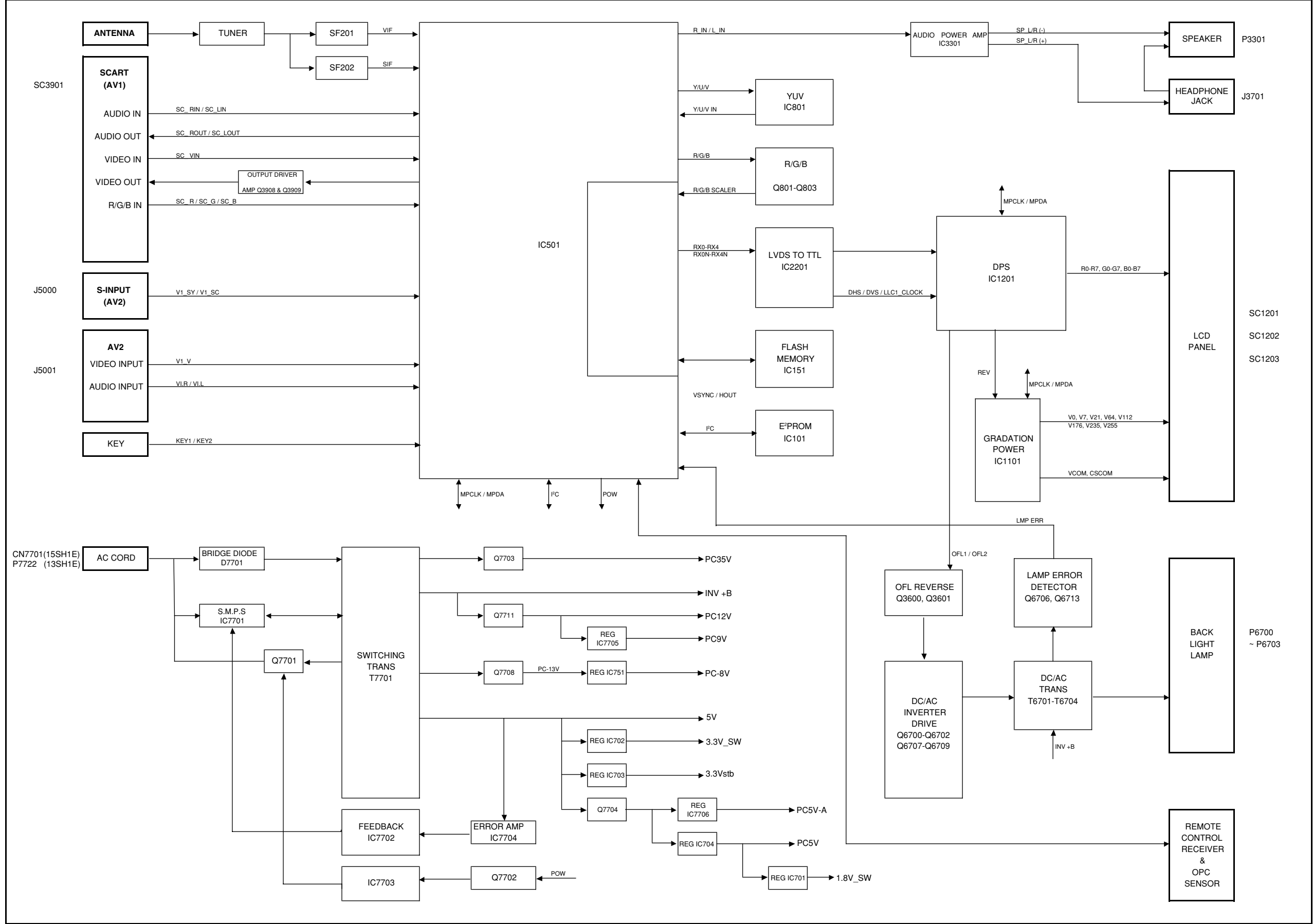
SUB Unit



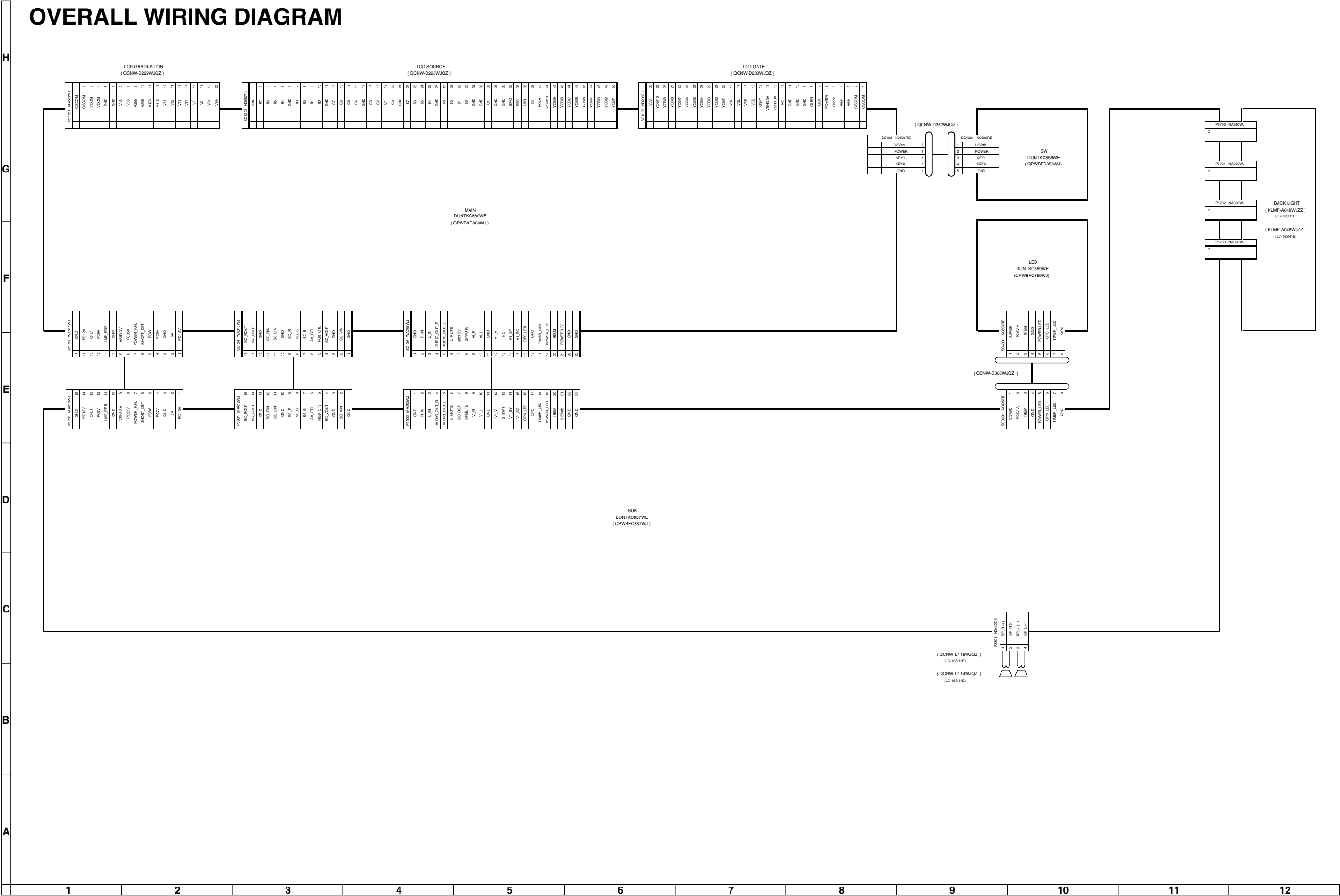
R/C, LED Unit



BLOCK DIAGRAM



OVERALL WIRING DIAGRAM



DESCRIPTION OF SCHEMATIC DIAGRAM

VOLTAGE MEASUREMENT CONDITION:

1. The voltages at test points are measured on the stable supply voltage of AC 220–240V. Signals are fed by a color bar signal generator for servicing purpose and the above voltages are measured with a 20k ohm/V tester.

INDICATION OF RESISTOR & CAPACITOR:

RESISTOR

1. The unit of resistance “ Ω ” is omitted.
(K=k Ω =1000 Ω , M=M Ω).
2. All resistors are $\pm 5\%$, unless otherwise noted.
(J= $\pm 5\%$, F= $\pm 1\%$, D= $\pm 0.5\%$)
3. All resistors are 1/16W, unless otherwise noted.
4. All resistors are Carbon type, unless otherwise noted.

Ⓒ: Solid	Ⓜ: Cement
Ⓢ: Oxide Film	Ⓣ: Special
Ⓝ: Metal Coating	

CAPACITOR

1. All capacitors are μF , unless otherwise noted.
(P=pF= $\mu\mu\text{F}$).
2. All capacitors are 50V, unless otherwise noted.
3. All capacitors are Ceramic type, unless otherwise noted.

(ML): Mylar	(TA): Tantalum
(PF): Polypro Film	(ST): Styrol

CAUTION:

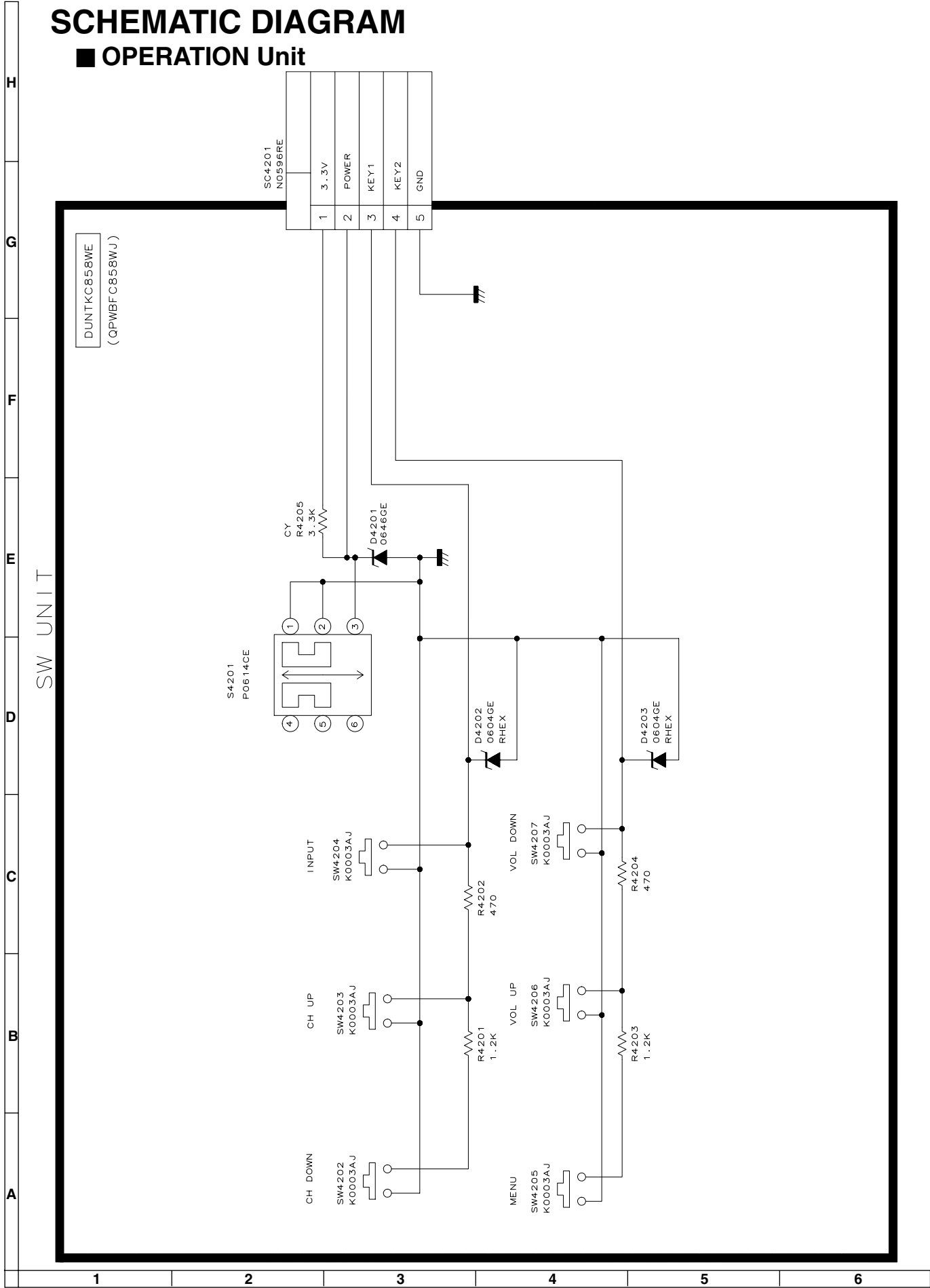
This circuit diagram is original one, therefore there may be a slight difference from yours.

IMPORTANT SAFETY NOTICE:

PARTS MARKED WITH “ $\triangle$ ” () ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

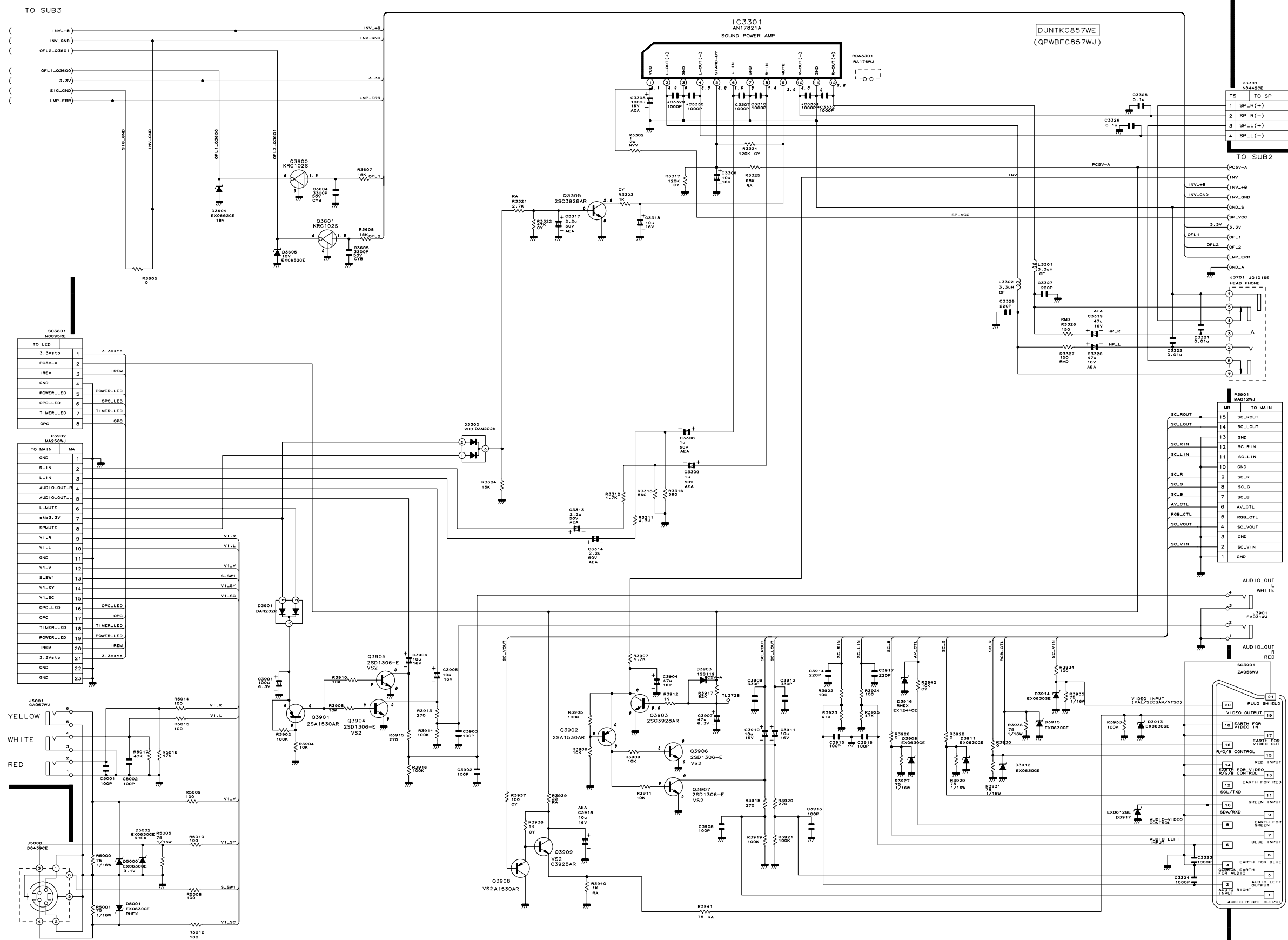
SCHEMATIC DIAGRAM

■ OPERATION Unit



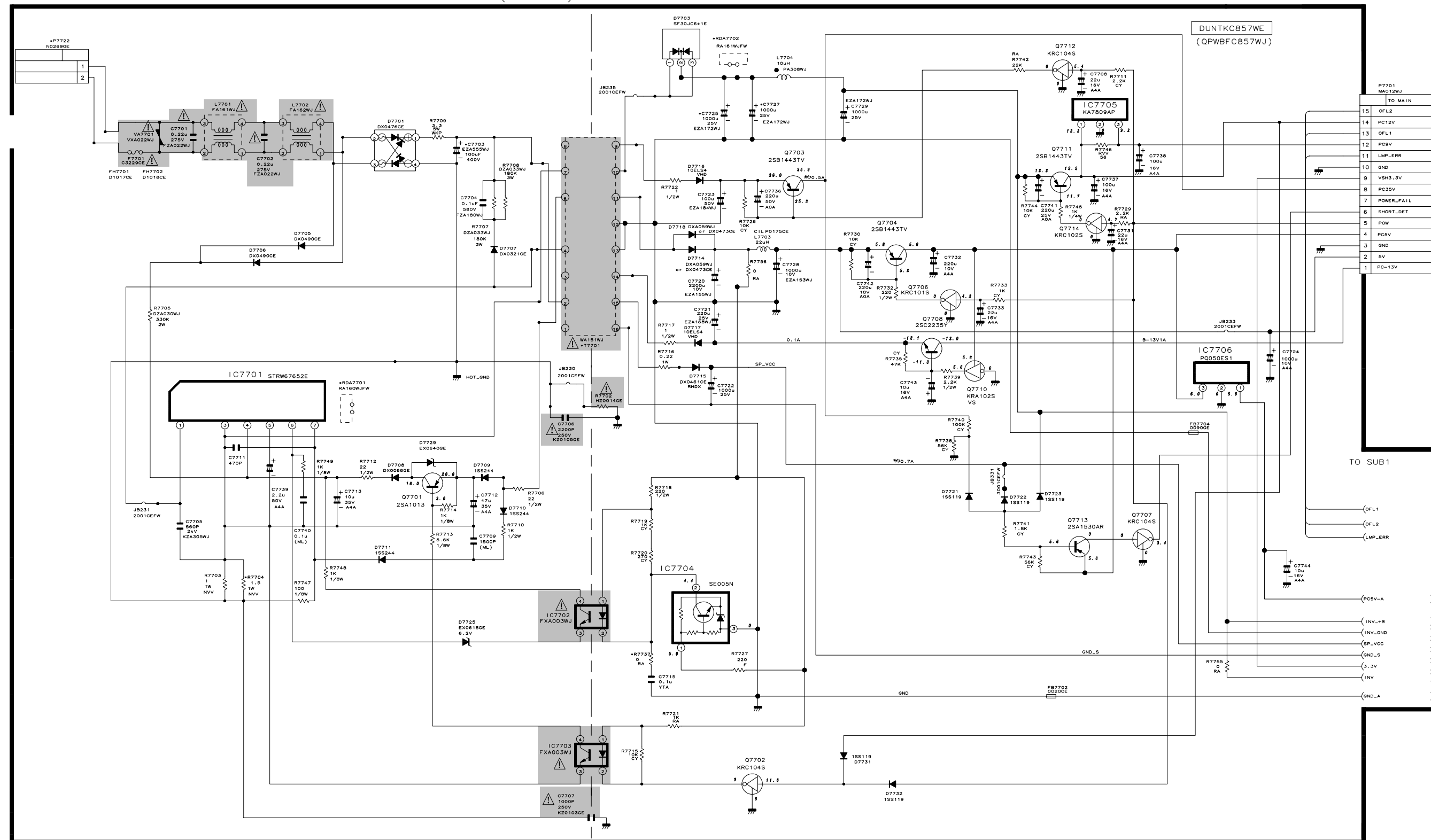
■ SUB Unit-1/3

SUB1 (AV_TERMINAL)



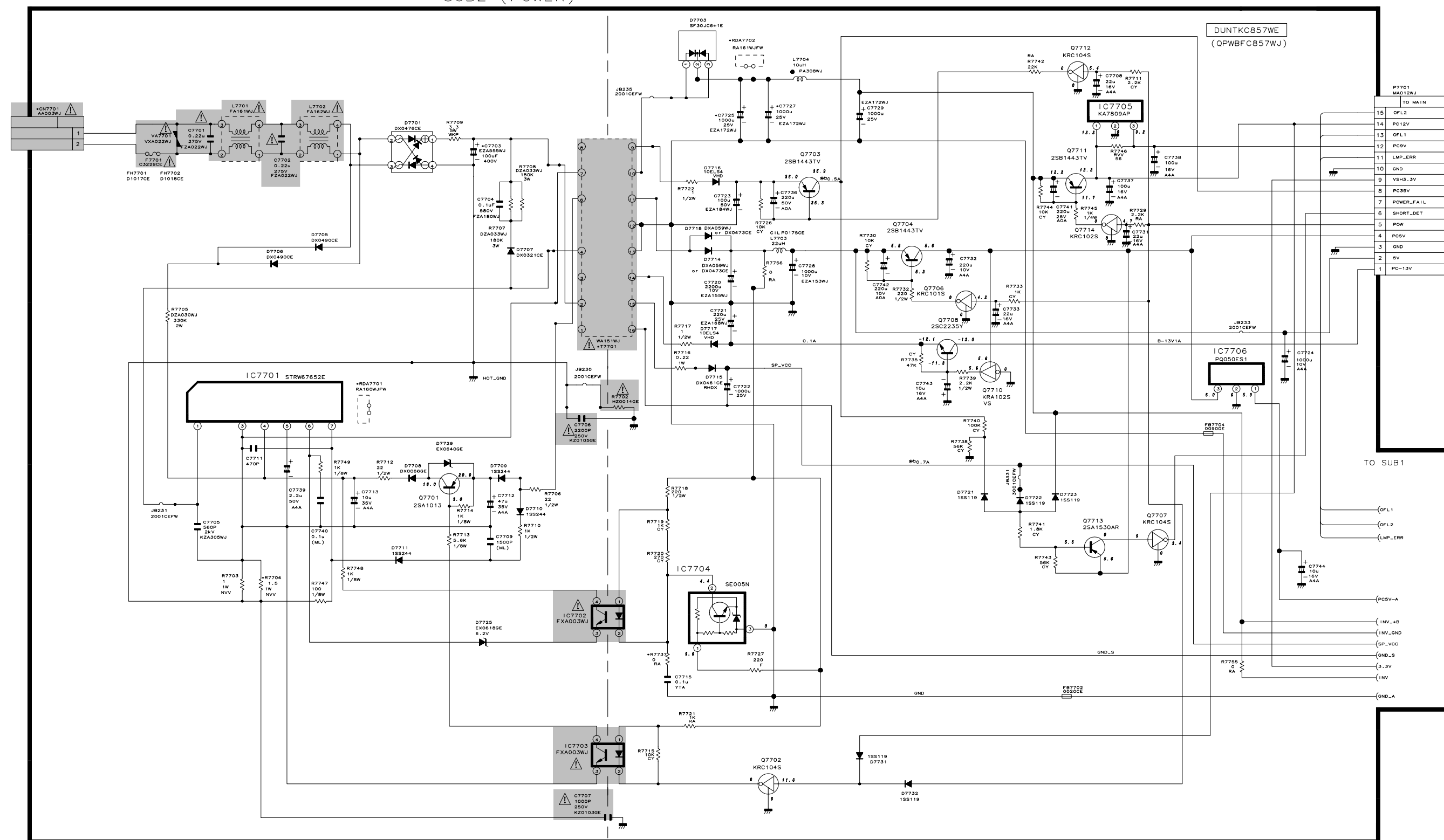
■ SUB Unit-2/3 (LC-13SH1E)

SUB2 (POWER)

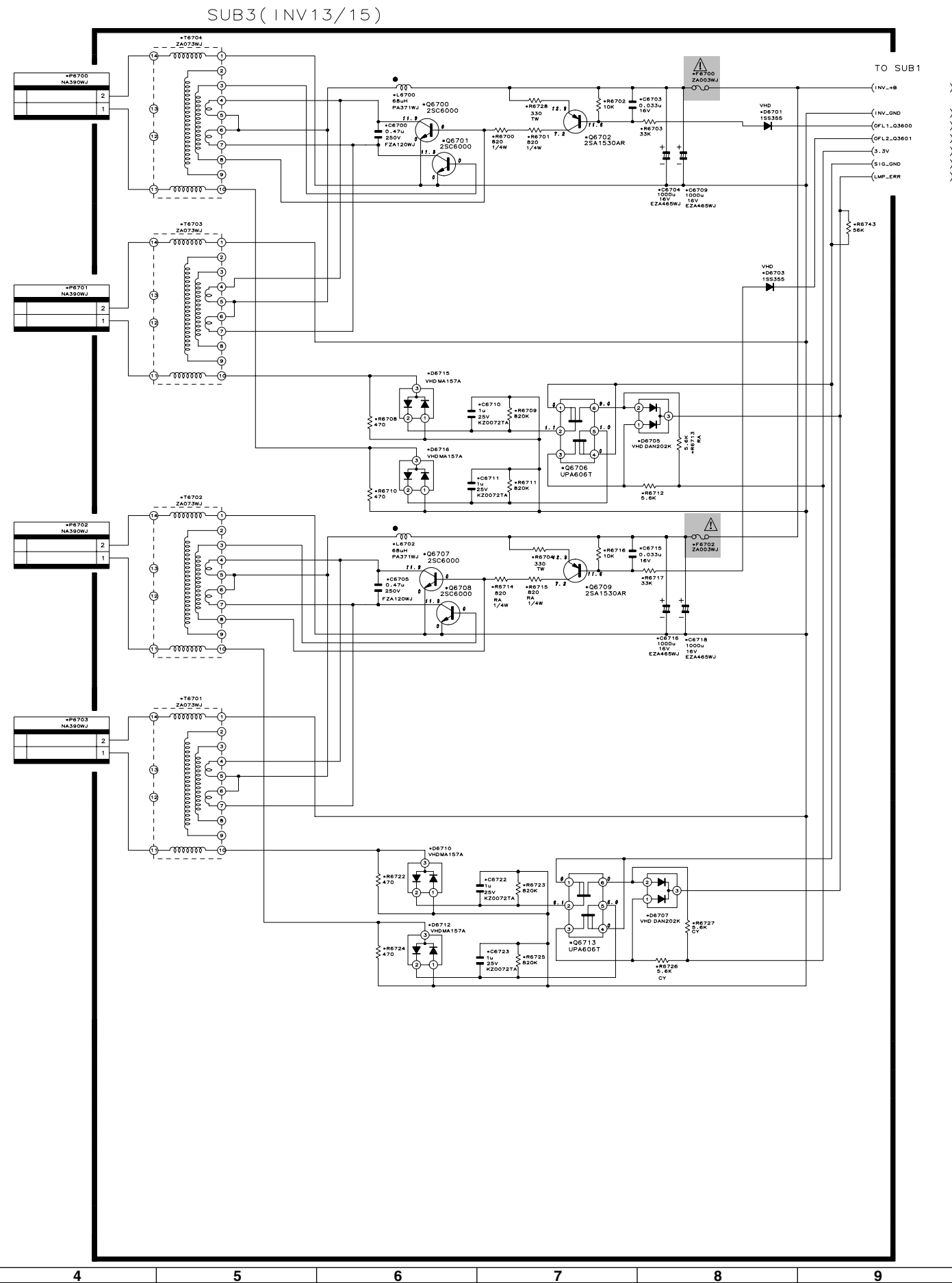


■ SUB Unit-2/3 (LC-15SH1E)

SUB2 (POWER)

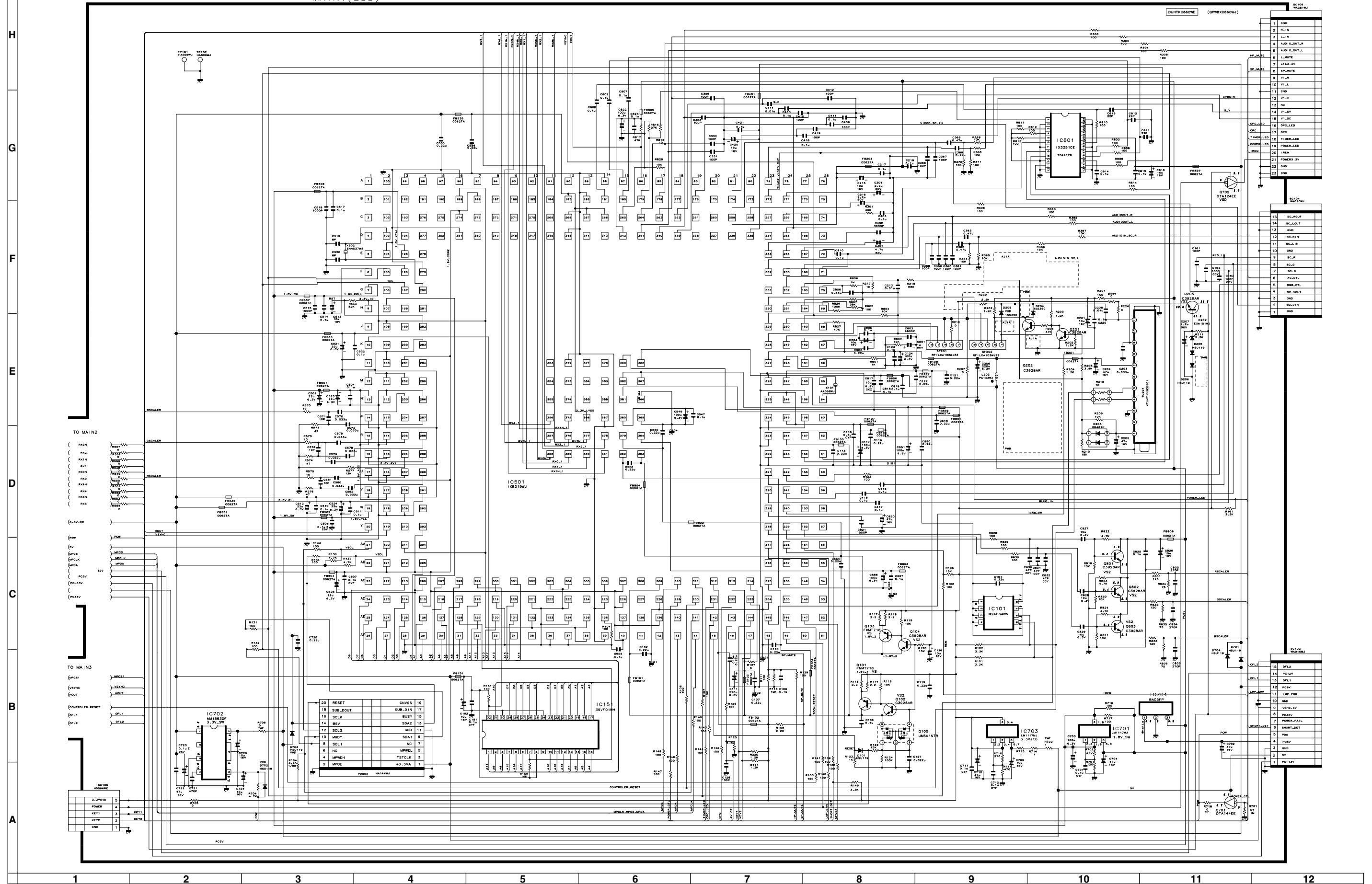


■ SUB Unit-3/3



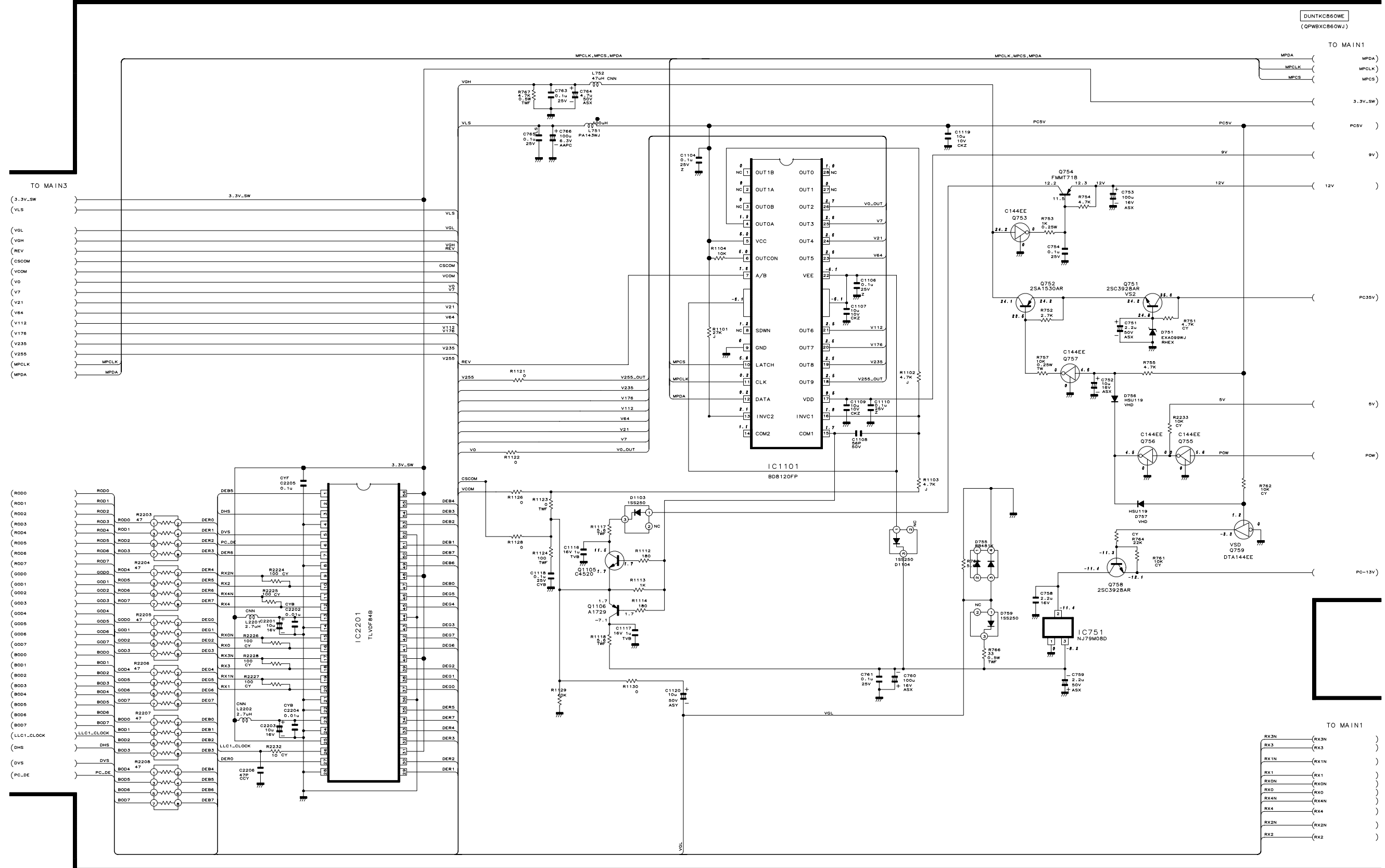
■ MAIN Unit-1/3

MAIN1(LOC)

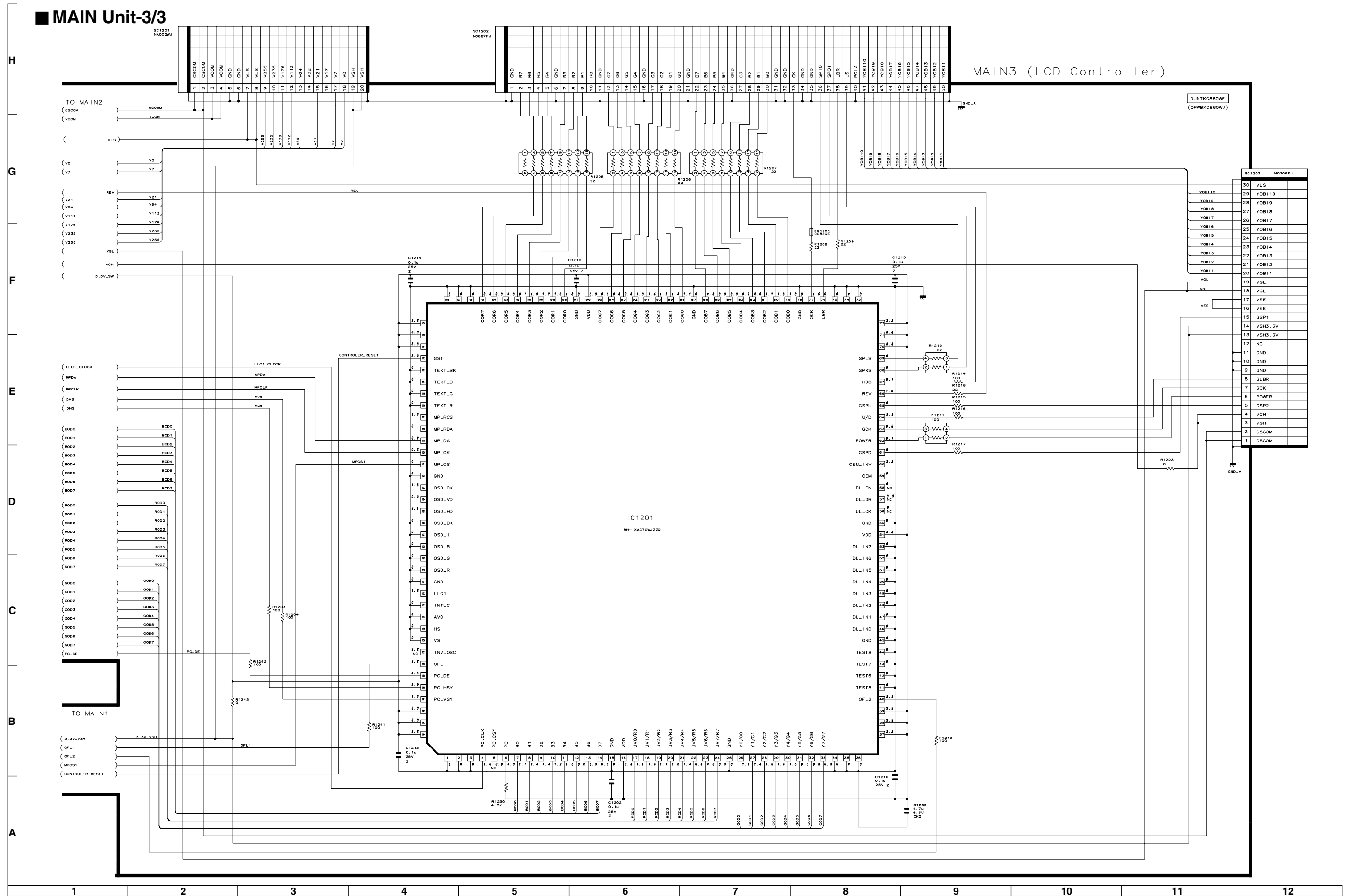


■ MAIN Unit-2/3

MAIN2 (INTERFACE)

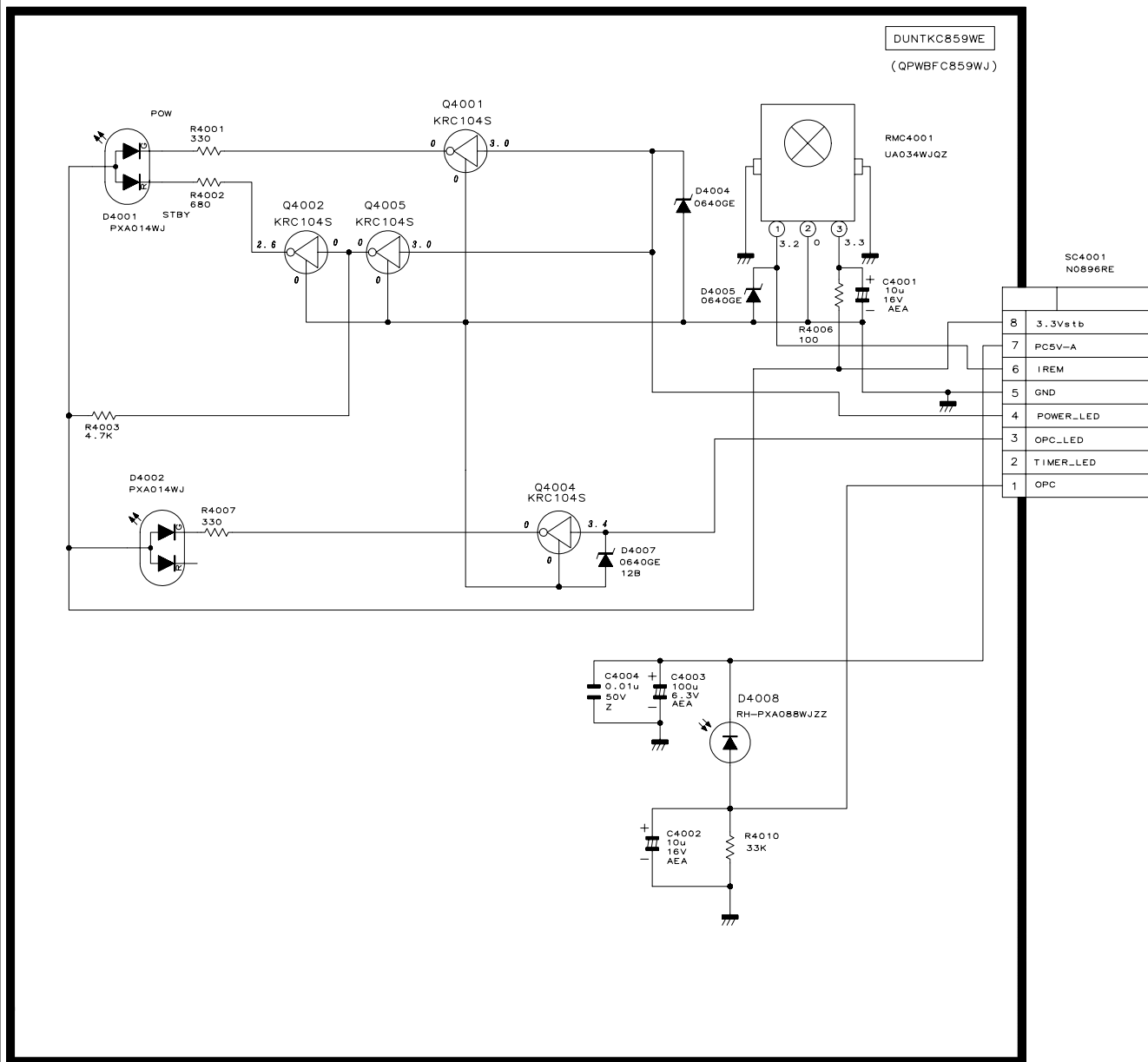


■ MAIN Unit-3/3



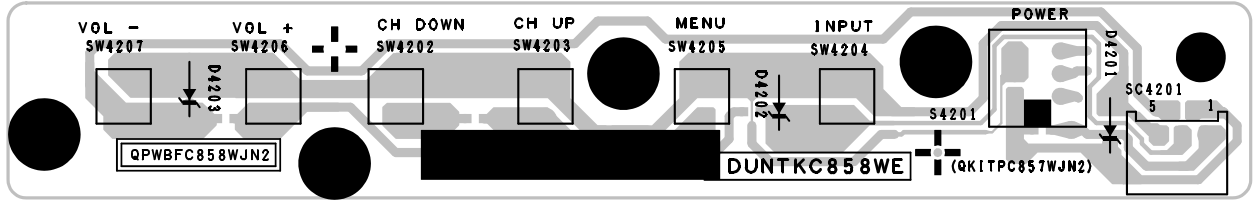
■ R/C, LED Unit

LED UNIT



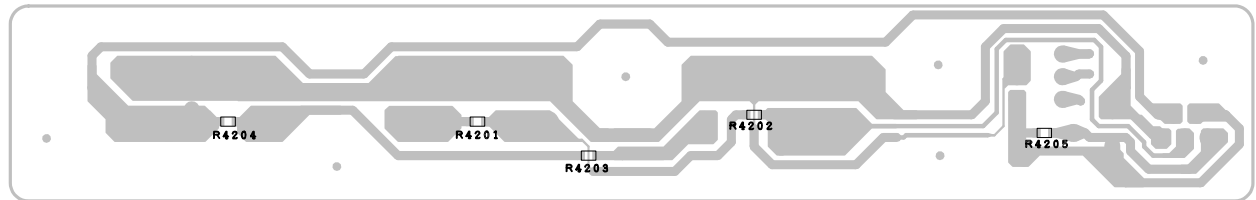
PRINTED WIRING BOARD ASSEMBLIES

H



OPERATION Unit (Wiring Side)

G

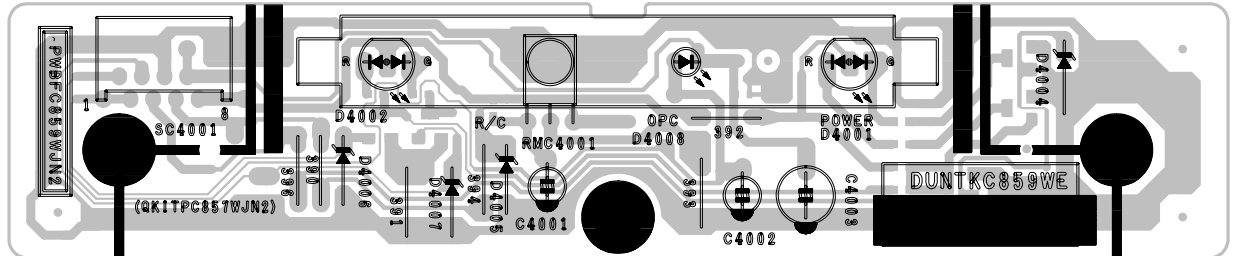


OPERATION Unit (Chip Parts Side)

F

E

D

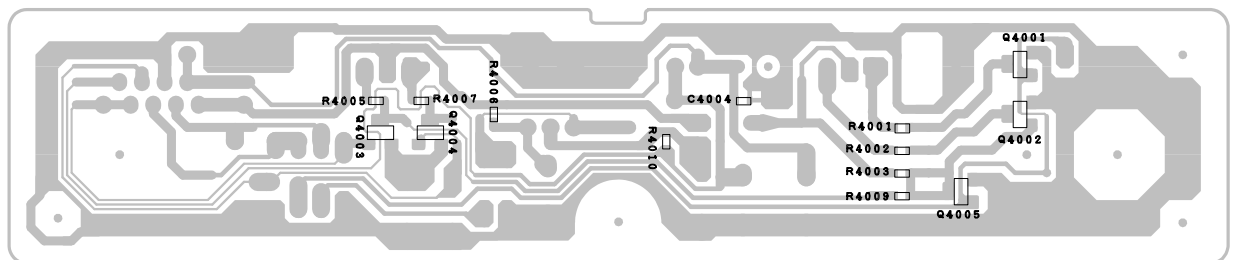


R/C, LED Unit (Wiring Side)

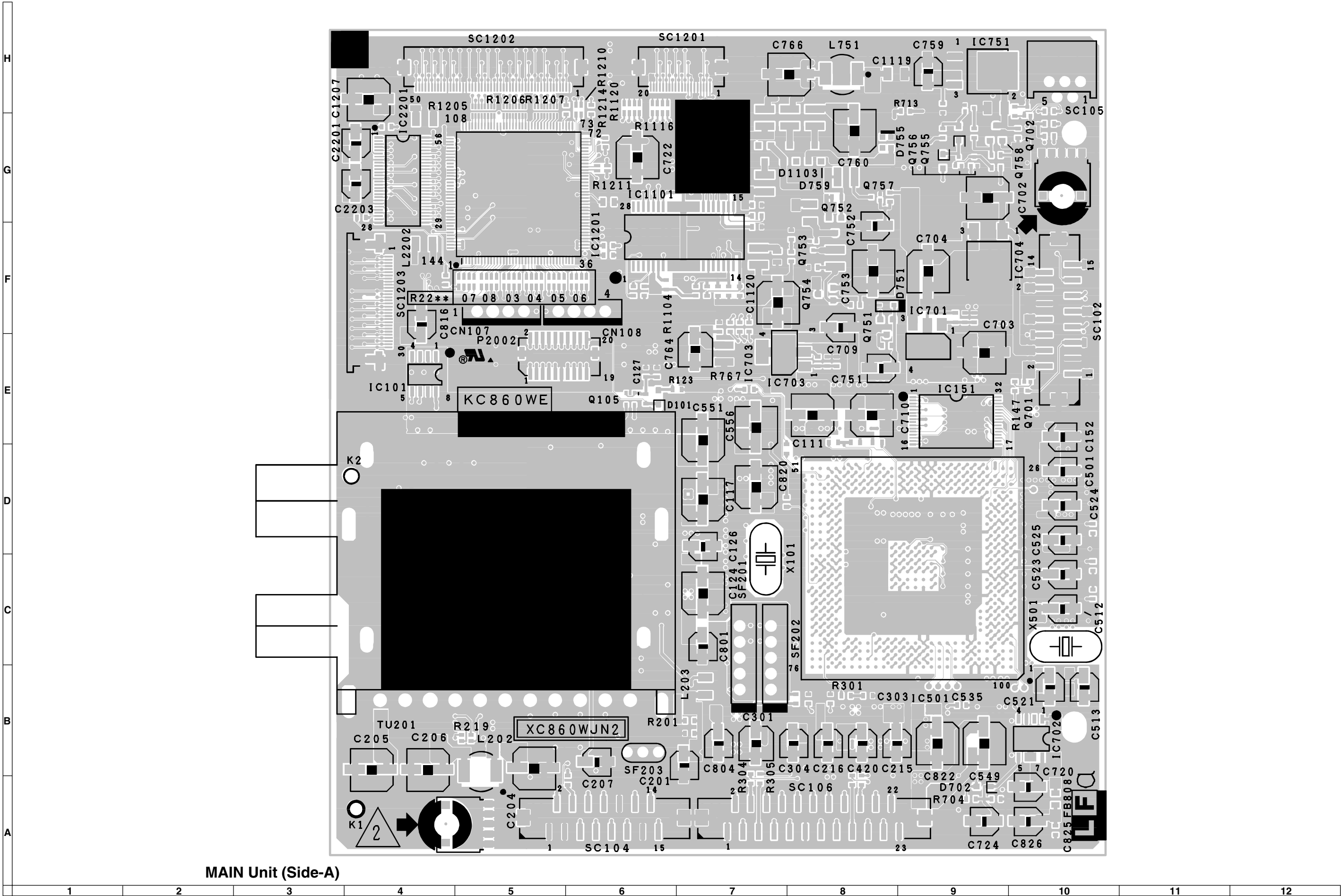
C

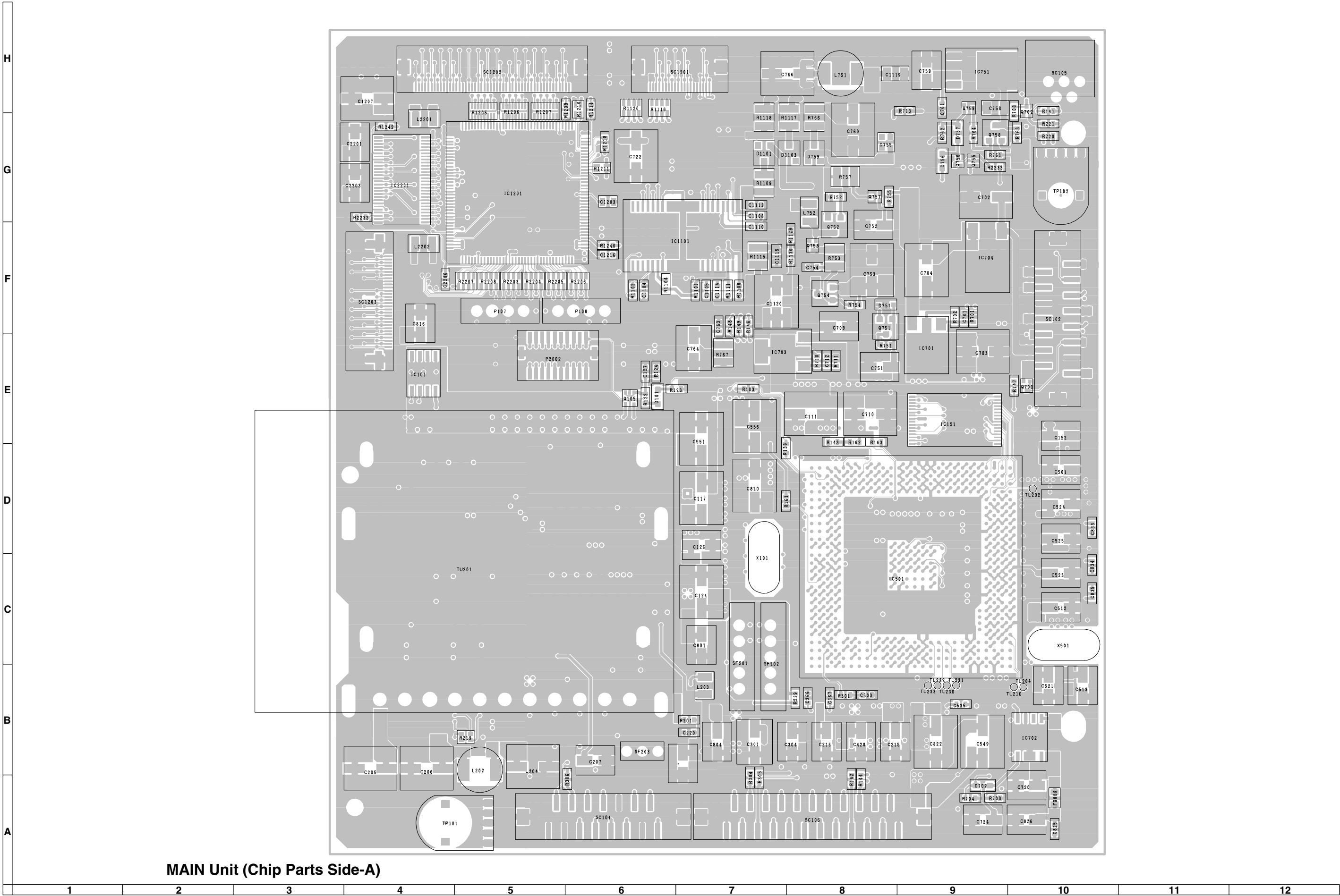
B

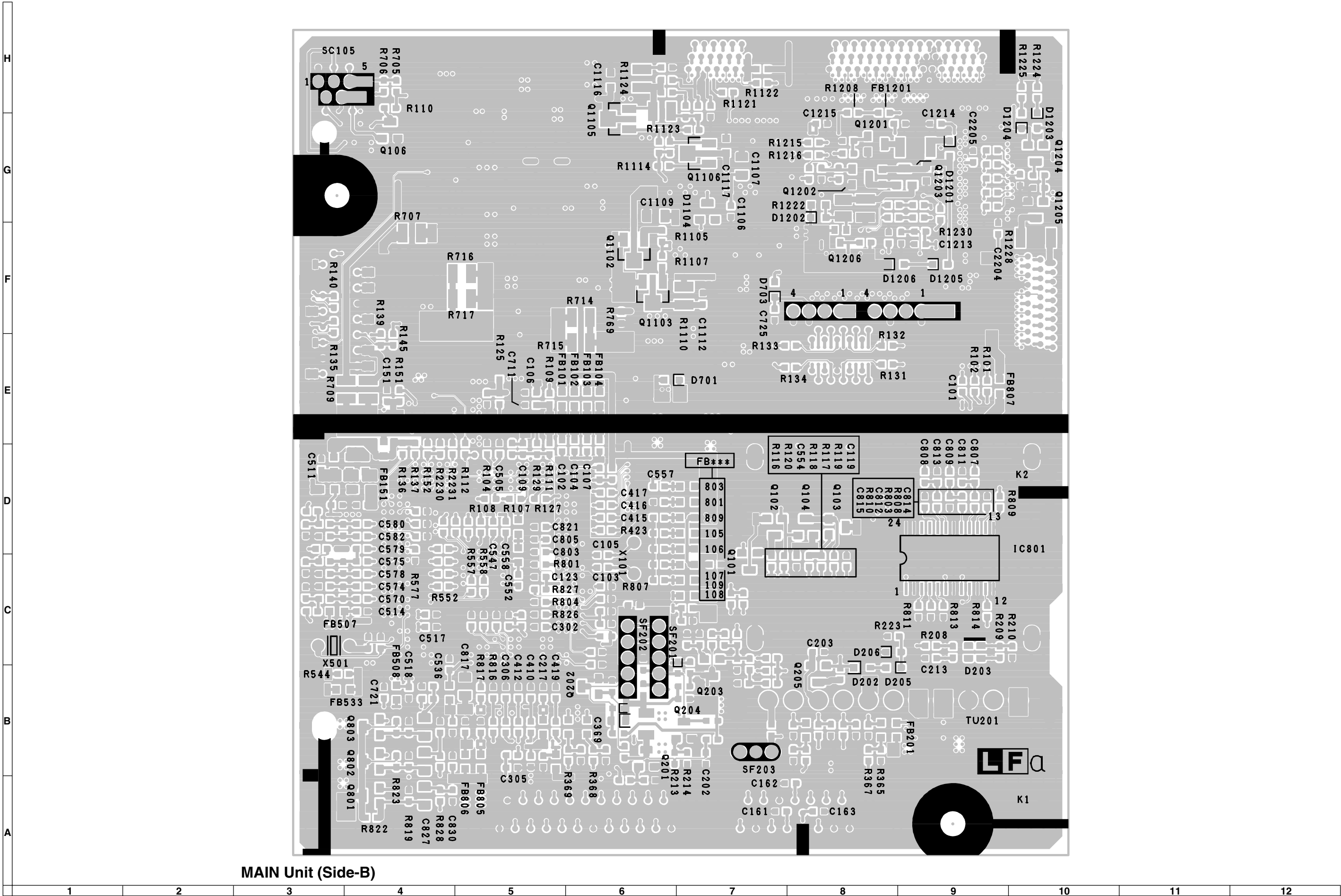
A

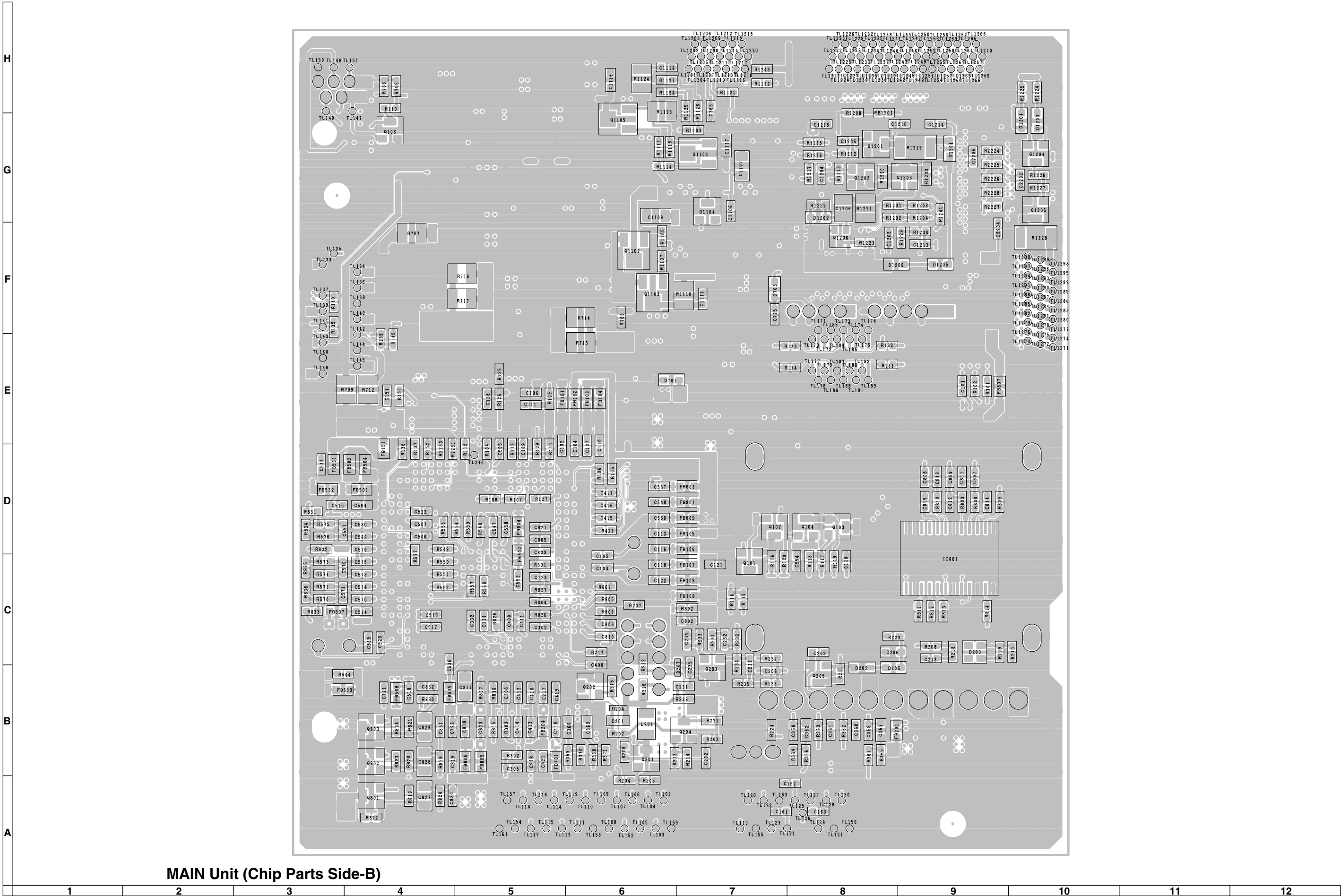


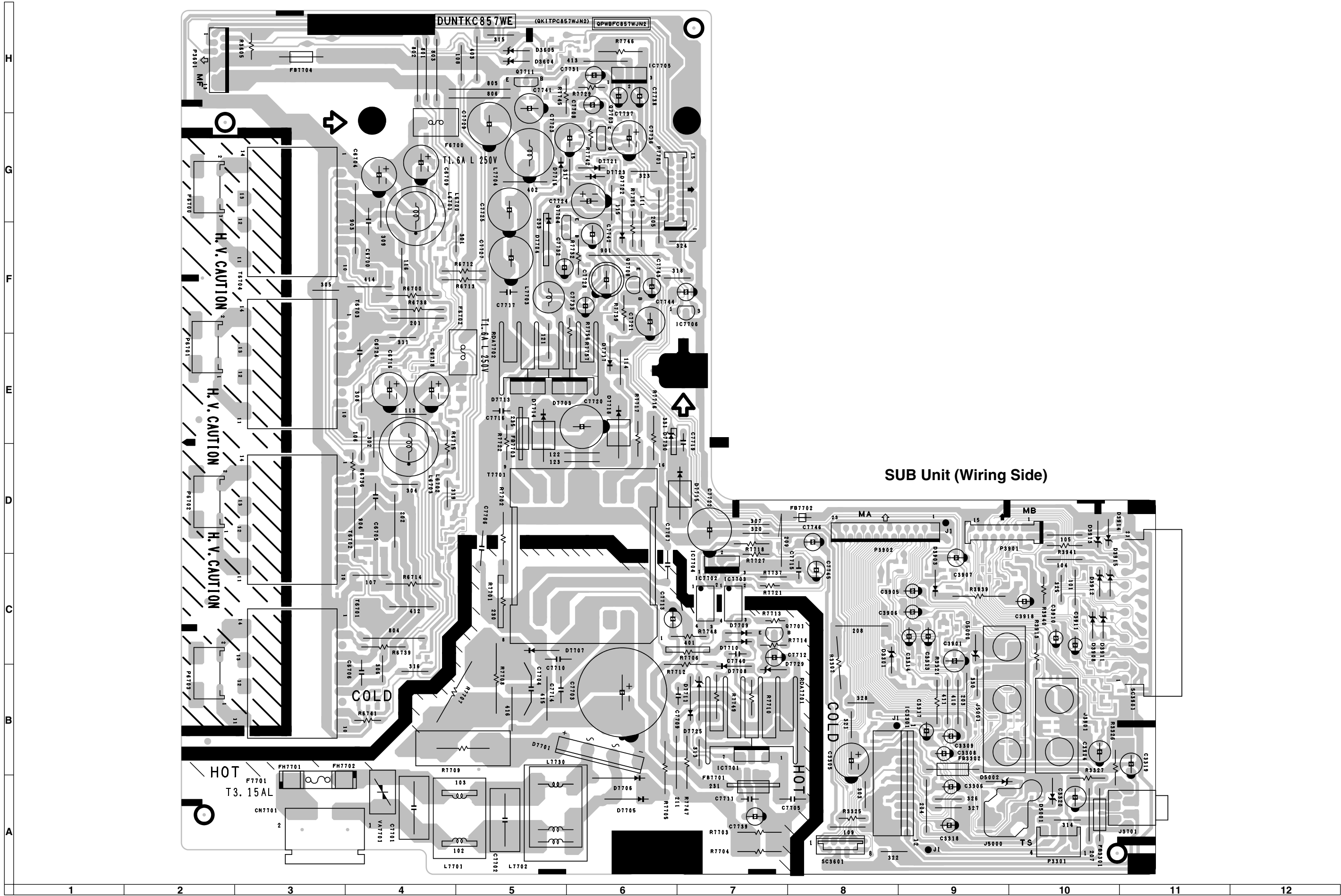
R/C, LED Unit (Chip Parts Side)

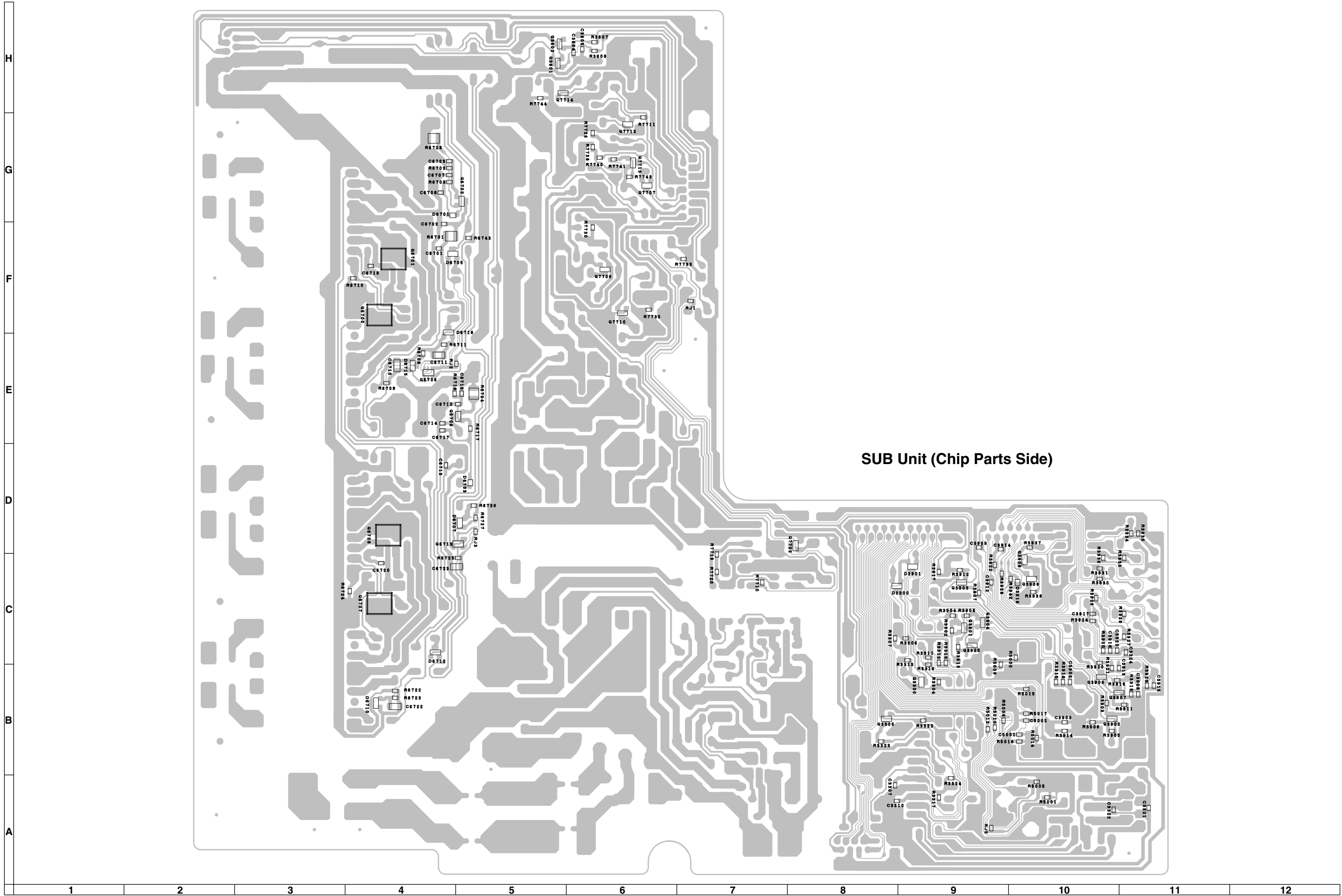












PARTS LIST

PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual; electrical components having such features are identified by  and shaded areas in the Replacement Parts Lists and Schematic Diagrams. The use of a substitute replacement part which does not have the same safety characteristic as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

- | | |
|-----------------|----------------|
| 1. MODEL NUMBER | 2. REF. NO. |
| 3. PART NO. | 4. DESCRIPTION |

★ MARK: SPARE PARTS-DELIVERY SECTION

Ref. No.	Part No.	★	Description	Code
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PRINTED WIRING BOARD ASSEMBLIES

(NOT REPLACEMENT ITEM)

LC-13SH1E

DUNTKC857WE06	—	SUB Unit	—
DUNTKC858WE06	—	OPERATION Unit	—
DUNTKC859WE06	—	R/C,LED Unit	—
DUNTKC860FM05	J	MAIN Unit	

LC-15SH1E

DUNTKC857WE05	—	SUB Unit	—
DUNTKC858WE05	—	OPERATION Unit	—
DUNTKC859WE05	—	R/C,LED Unit	—
DUNTKC860FM04	J	MAIN Unit	

LCD PANEL

NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.

RLCDDTA023WJZZ	J	13" LCD Panel Unit (LC-13SH1E)	CQ
RLCDDTA024WJZZ	J	15" LCD Panel Unit (LC-15SH1E)	CT

Ref. No.	Part No.	★	Description	Code
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DUNTKC857WE06 (LC-13SH1E)

DUNTKC857WE05 (LC-15SH1E)

SUB UNIT

INTEGRATED CIRCUITS

IC3301	VHiAN17821A-1	J	AN17821A	AH
IC7701	VHiSTRW67652E	J	I.C.	
 IC7702	RH-FXA003WJZZ	J	PC123Y82	AD
 IC7703	RH-FXA003WJZZ	J	PC123Y82	AD
IC7704	VHiSE005N++-F	S	I.C.	AF
IC7705	VHiKA7809AP-1	J	KIA7809API	AE
IC7706	VHiPQ050ES1-1+	J	PQ050ES1MXP	AE

TRANSISTORS

Q3300	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3305	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3600	VSKRC102S//-1Y	J	KRC102S	AA
Q3601	VSKRC102S//-1Y	J	KRC102S	AA
Q3901	VS2SA1530AR-1Y	J	2SA1530AR	AB
Q3902	VS2SA1530AR-1Y	J	2SA1530AR	AB
Q3903	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3904	VS2SD1306-E-1Y	J	2SD1306	AC
Q3905	VS2SD1306-E-1Y	J	2SD1306	AC
Q3906	VS2SD1306-E-1Y	J	2SD1306	AC
Q3907	VS2SD1306-E-1Y	J	2SD1306	AC
Q3908	VS2SA1530AR-1Y	J	2SA1530AR	AB
Q3909	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q6700	VS2SC6000++-1Y		2SC6000	
Q6701	VS2SC6000++-1Y		2SC6000	
Q6702	VS2SA1530AR-1Y	J	2SA1530AR	AB
Q6706	VSUPA606T//-1Y	J	UPA606T	AD
Q6707	VS2SC6000++-1Y		2SC6000	
Q6708	VS2SC6000++-1Y		2SC6000	
Q6709	VS2SA1530AR-1Y	J	2SA1530AR	AB
Q6713	VSUPA606T//-1Y	J	UPA606T	AD
Q7701	VS2SA1013//1E+	J	2SA1013	AD
Q7702	VSKRC104S//-1Y	J	KRC104S	AA
Q7703	VS2SB1443TV1E+	J	2SB1443TV	AE
Q7704	VS2SB1443TV1E+	J	2SB1443TV	AE
Q7706	VSKRC101S//-1Y	S	KRC101S	AA
Q7707	VSKRC104S//-1Y	J	KRC104S	AA
Q7708	VS2SC2235Y/1E+	J	2SC2235Y	AE
Q7710	VSKRA102S//-1Y	J	KRA102S	AA
Q7711	VS2SB1443TV1E+	J	2SB1443TV	AE
Q7712	VSKRC104S//-1Y	J	KRC104S	AA
Q7713	VS2SA1530AR-1Y	J	2SA1530AR	AB
Q7714	VSKRC102S//-1Y	J	KRC102S	AA

DIODES

D3300	VHDDAN202K/-1Y	J	Diode	AB
D3301	RH-EX0621GEZZY	J	Zener Diode	AB
D3604	RH-EX0652GEZZY	J	Zener Diode	AB
D3605	RH-EX0652GEZZY	J	Zener Diode	AB
D3901	VHDDAN202K/-1Y	J	Diode	AB
D3903	VHD1SS119//1Y	J	Diode	AA
D3908	RH-EX0630GEZZY	J	Zener Diode, 9.1V	AA
D3911	RH-EX0630GEZZY	J	Zener Diode, 9.1V	AA
D3912	RH-EX0630GEZZY	J	Zener Diode, 9.1V	AA
D3913	RH-EX0630GEZZY	J	Zener Diode, 9.1V	AA
D3914	RH-EX0630GEZZY	J	Zener Diode, 9.1V	AA
D3915	RH-EX0630GEZZY	J	Zener Diode, 9.1V	AA
D3916	RH-EX1244CEZZY	J	Zener Diode	AB
D3917	RH-EX1244CEZZY	J	Zener Diode	AB
D5000	RH-EX0630GEZZY	J	Zener Diode, 9.1V	AA
D5001	RH-EX0630GEZZY	J	Zener Diode, 9.1V	AA
D5002	RH-EX0630GEZZY	J	Zener Diode, 9.1V	AA
D6701	VHD1SS355//1Y	J	Diode	AB
D6703	VHD1SS355//1Y	J	Diode	AB
D6705	VHDDAN202K/-1Y	J	Diode	AB
D6707	VHDDAN202K/-1Y	J	Diode	AB
D6710	VHDMA157A//1Y	J	Diode	AC
D6712	VHDMA157A//1Y	J	Diode	AC
D6715	VHDMA157A//1Y	J	Diode	AC
D6716	VHDMA157A//1Y	J	Diode	AC
D7701	RH-DX0476CEZZ	J	Diode	AG

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
DUNTKC857WE06 (LC-13SH1E)					DUNTKC857WE05 (LC-15SH1E)				
SUB UNIT (Continued)									
D7703	VHDSF30JC6+1E	S	Diode	AG	C3908	VCCCCY1HH101JY	J	100p 50V Ceramic	AA
D7705	RH-DX0490CEZZY	J	Diode	AC	C3909	VCCCCY1HH331JY	J	330p 50V Ceramic	AA
D7706	RH-DX0490CEZZY	J	Diode	AC	C3910	VCEAEA1CW106M+	J	10 16V Electrolytic	AB
D7707	RH-DX0321CEZZY	J	Diode	AC	C3911	VCEAEA1CW106M+	J	10 16V Electrolytic	AB
D7708	RH-DX0066GEZZY	J	Diode	AC	C3912	VCCCCY1HH331JY	J	330p 50V Ceramic	AA
D7709	VHD1SS244/-1Y	J	Diode	AB	C3913	VCCCCY1HH101JY	J	100p 50V Ceramic	AA
D7710	VHD1SS244/-1Y	J	Diode	AB	C3914	VCCCCY1HH221JY	J	220p 50V Ceramic	AA
D7711	VHD1SS244/-1Y	J	Diode	AB	C3915	VCCCCY1HH101JY	J	100p 50V Ceramic	AA
D7714	RH-DXA059WJZZ	S	Diode	AD	C3916	VCCCCY1HH101JY	J	100p 50V Ceramic	AA
D7715	RH-DX0461CEZZ	J	Diode	AG	C3917	VCCCCY1HH221JY	J	220p 50V Ceramic	AA
D7716	VHD10ERB40+-1Y	J	Diode	AB	C3918	VCEAEA1CW106M+	J	10 16V Electrolytic	AB
D7717	VHD10ERB40+-1Y	J	Diode	AB	C5001	VCCCCY1HH101JY	J	100p 50V Ceramic	AA
D7718	RH-DXA059WJZZ	S	Diode	AD	C5002	VCCCCY1HH101JY	J	100p 50V Ceramic	AA
D7721	VHD1SS119/-1Y	J	Diode	AA	C6700	RC-FZA120WJZZ		0.47 250V Film	
D7722	VHD1SS119/-1Y	J	Diode	AA	C6703	VCKYCY1CB333KY	J	0.033 16V Ceramic	AA
D7723	VHD1SS119/-1Y	J	Diode	AA	C6704	RC-EZA465WJZZ	J	1000 16V Electrltyc	AE
D7725	RH-EX0618GEZZY	J	Zener Diode, 6.2V	AB	C6705	RC-FZA120WJZZ		0.47 250V Film	
D7729	RH-EX0640GEZZY	J	Zener Diode	AA	C6709	RC-EZA465WJZZ	J	1000 16V Electrltyc	AE
D7731	VHD1SS119/-1Y	J	Diode	AA	C6710	RC-KZ0072TAZZY	J	1 25V Ceramic	AC
D7732	VHD1SS119/-1Y	J	Diode	AA	C6711	RC-KZ0072TAZZY	J	1 25V Ceramic	AC
△ VA7701	RH-VXA022WJZZ	J	Varistor		C6715	VCKYCY1CB333KY	J	0.033 16V Ceramic	AA
COILS					C6716	RC-EZA465WJZZ	J	1000 16V Electrltyc	AE
L6700	RCiLPA371WJZZ		Coil		C6718	RC-EZA465WJZZ	J	1000 16V Electrltyc	AE
L6702	RCiLPA371WJZZ		Coil		C6722	RC-KZ0072TAZZY	J	1 25V Ceramic	AC
△ L7701	RCiLFA161WJZZ	S	Coil	AD	C6723	RC-KZ0072TAZZY	J	1 25V Ceramic	AC
△ L7702	RCiLFA162WJZZ	S	Coil	AD	△ C7701	RC-FZA022WJZZ	J	0.22 275V Film	AD
L7703	RCiLP0175CEZZ+	J	Coil	AD	△ C7702	RC-FZA022WJZZ	J	0.22 275V Film	AD
L7704	RCiLPA308WJZZ	S	Coil	AD	C7703	RC-EZA555WJZZ	J	100 400V Electrolytic	AM
TRANSFORMERS					C7704	RC-FZA180WJZZ	S	0.1 580V Film	AC
T6701	RTRNZA073WJZZ		Transformer		C7705	RC-KZA305WJZZ	S	560p 2kV Ceramic	AB
T6702	RTRNZA073WJZZ		Transformer		△ C7706	RC-KZ0105GEZZ	J	2200p 250V Ceramic	AD
T6703	RTRNZA073WJZZ		Transformer		△ C7707	RC-KZ0103GEZZ	J	1000p 250V Ceramic	AD
T6704	RTRNZA073WJZZ		Transformer		C7708	VCEA4A1CN226M+	J	22 16V Electrolytic	AA
△ T7701	RTRNWA151WJZZ		Transformer		C7709	VCQYTA1HM152J+	J	1500p 50V Mylar	AA
CAPACITORS					C7711	VCKYPA1HB471K+	J	470p 50V Ceramic	AA
C3305	VCEA0A1CW108M+	J	1000 16V Electrolytic	AD	C7712	VCEA4A1VN476M+	S	47 35V Electrolytic	AB
C3306	VCEAEA1CW106M+	J	10 16V Electrolytic	AB	C7713	VCEA4A1VN106M+	S	10 35V Electrolytic	AB
C3307	VCKYCY1HB102KY	J	1000p 50V Ceramic	AA	C7715	VCQYTA1HM104J+	J	0.1 50V Mylar	AB
C3308	VCEAEA1HW105M+	J	1 50V Electrolytic	AB	C7720	RC-EZA155WJZZ	J	2200 10V Electrolytic	AE
C3309	VCEAEA1HW105M+	J	1 50V Electrolytic	AB	C7721	RC-EZA168WJZZ+	S	220 25V Electrolytic	AB
C3310	VCKYCY1HB102KY	J	1000p 50V Ceramic	AA	C7722	RC-EZA172WJZZ	J	1000 25V Electrolytic	AE
C3313	VCEAEA1HW225M+	J	2.2 50V Electrolytic	AB	C7723	RC-EZA184WJZZ+	J	100 50V Electrolytic	AD
C3314	VCEAEA1HW225M+	J	2.2 50V Electrolytic	AB	C7724	VCEA4A1AN108M	J	1000 10V Electrolytic	AD
C3317	VCEAEA1HW225M+	J	2.2 50V Electrolytic	AB	C7725	RC-EZA172WJZZ	J	1000 25V Electrolytic	AE
C3318	VCEAEA1CW106M+	J	10 16V Electrolytic	AB	C7727	RC-EZA172WJZZ	J	1000 25V Electrolytic	AE
C3319	VCEAEA1CW476M+	J	47 16V Electrolytic	AB	C7728	RC-EZA153WJZZ+	J	1000 10V Electrolytic	AD
C3320	VCEAEA1CW476M+	J	47 16V Electrolytic	AB	C7729	RC-EZA172WJZZ	J	1000 25V Electrolytic	AE
C3321	VCKYCY1HB103KY	J	0.01 50V Ceramic	AA	C7731	VCEA4A1CN226M+	J	22 16V Electrolytic	AA
C3322	VCKYCY1HB103KY	J	0.01 50V Ceramic	AA	C7732	VCEA4A1AN227M+	J	220 10V Electrolytic	AC
C3323	VCKYCY1HB102KY	J	1000p 50V Ceramic	AA	C7733	VCEA4A1CN226M+	J	22 16V Electrolytic	AA
C3324	VCKYCY1HB102KY	J	1000p 50V Ceramic	AA	C7736	VCEA0A1HW227M+	J	220 50V Electrolytic	AB
C3325	VCKYCY1CF104ZY	J	0.1 16V Ceramic	AA	C7737	VCEA4A1CN107M+	J	100 16V Electrolytic	AB
C3326	VCKYCY1CF104ZY	J	0.1 16V Ceramic	AA	C7738	VCEA4A1CN107M+	J	100 16V Electrolytic	AB
C3327	VCCCCY1HH221JY	J	220p 50V Ceramic	AA	C7739	VCEA4A1HN225M+	J	2.2 50V Electrolytic	AC
C3328	VCCCCY1HH221JY	J	220p 50V Ceramic	AA	C7740	VCQYTA1HM104J+	J	0.1 50V Mylar	AB
C3329	VCKYCY1HB102KY	J	1000p 50V Ceramic	AA	C7741	VCEA0A1EW227M+	J	220 25V Electrolytic	AB
C3330	VCKYCY1HB102KY	J	1000p 50V Ceramic	AA	C7742	VCEA0A1AW227M+	J	220 10V Electrolytic	AB
C3331	VCKYCY1HB102KY	J	1000p 50V Ceramic	AA	C7743	VCEA4A1CN106M+	J	10 16V Electrolytic	AC
C3332	VCKYCY1HB102KY	J	1000p 50V Ceramic	AA	C7744	VCEA4A1CN106M+	J	10 16V Electrolytic	AC
C3604	VCKYCY1HB332KY	J	3300p 50V Ceramic	AA	RESISTORS				
C3605	VCKYCY1HB332KY	J	3300p 50V Ceramic	AA	RJ1	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA
C3901	VCEAEA0JW107M+	J	100 6.3V Electrolytic	AB	RJ2	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA
C3902	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	RJ3	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA
C3903	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	RJ4	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA
C3904	VCEAEA1CW476M+	J	47 16V Electrolytic	AB	RJ5	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA
C3905	VCEAEA1CW106M+	J	10 16V Electrolytic	AB	R3302	VRN-VV3DB1R0J	J	1 2W Metal Film	AB
C3906	VCEAEA1CW106M+	J	10 16V Electrolytic	AB	R3304	VRS-CY1JF153JY	J	15k 1/16W Metal Oxide	AA
C3907	VCEAEA0JW476M+	J	47 6.3V Electrolytic	AB	R3306	VRS-CY1JF223JY	J	22k 1/16W Metal Oxide	AA
					R3307	VRS-CY1JF682JY	J	6.8k 1/16W Metal Oxide	AA
					R3311	VRS-CY1JF472JY	J	4.7k 1/16W Metal Oxide	AA
					R3312	VRS-CY1JF472JY	J	4.7k 1/16W Metal Oxide	AA
					R3313	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
					R3315	VRS-CY1JF561JY	J	560 1/16W Metal Oxide	AA
					R3316	VRS-CY1JF561JY	J	560 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
DUNTKC857WE06 (LC-13SH1E)				
DUNTKC857WE05 (LC-15SH1E)				
SUB UNIT (Continued)				
R3317	VRS-CY1JF124JY	J	120k 1/16W Metal Oxide	AA
R3321	VRD-RA2BE272JY	J	2.7k 1/8W Carbon	AA
R3322	VRS-CY1JF473JY	J	47k 1/16W Metal Oxide	AA
R3323	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA
R3324	VRS-CY1JF124JY	J	120k 1/16W Metal Oxide	AA
R3325	VRD-RA2BE683JY	J	68k 1/8W Carbon	AA
R3326	VRD-RM2HD151JY	J	150 1/2W Carbon	AA
R3327	VRD-RM2HD151JY	J	150 1/2W Carbon	AA
R3607	VRS-CY1JF153JY	J	15k 1/16W Metal Oxide	AA
R3608	VRS-CY1JF153JY	J	15k 1/16W Metal Oxide	AA
R3902	VRS-CY1JF104JY	J	100k 1/16W Metal Oxide	AA
R3904	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R3905	VRS-CY1JF104JY	J	100k 1/16W Metal Oxide	AA
R3906	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R3907	VRS-CY1JF472JY	J	4.7k 1/16W Metal Oxide	AA
R3908	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R3909	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R3910	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R3911	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R3912	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA
R3913	VRD-RA2BE271JY	J	270 1/8W Carbon	AA
R3914	VRS-CY1JF104JY	J	100k 1/16W Metal Oxide	AA
R3915	VRS-CY1JF271JY	J	270 1/16W Metal Oxide	AA
R3916	VRS-CY1JF104JY	J	100k 1/16W Metal Oxide	AA
R3917	VRS-CY1JF823JY	J	82k 1/16W Metal Oxide	AA
R3918	VRS-CY1JF271JY	J	270 1/16W Metal Oxide	AA
R3919	VRS-CY1JF104JY	J	100k 1/16W Metal Oxide	AA
R3920	VRS-CY1JF271JY	J	270 1/16W Metal Oxide	AA
R3921	VRS-CY1JF104JY	J	100k 1/16W Metal Oxide	AA
R3922	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R3923	VRS-CY1JF473JY	J	47k 1/16W Metal Oxide	AA
R3924	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R3925	VRS-CY1JF473JY	J	47k 1/16W Metal Oxide	AA
R3926	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA
R3927	VRS-CY1JF750JY	J	75 1/16W Metal Oxide	AA
R3928	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA
R3929	VRS-CY1JF750JY	J	75 1/16W Metal Oxide	AA
R3930	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA
R3931	VRS-CY1JF750JY	J	75 1/16W Metal Oxide	AA
R3933	VRS-CY1JF104JY	J	100k 1/16W Metal Oxide	AA
R3934	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R3935	VRS-CY1JF750JY	J	75 1/16W Metal Oxide	AA
R3936	VRS-CY1JF750JY	J	75 1/16W Metal Oxide	AA
R3937	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R3938	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA
R3939	VRD-RA2BE220JY	J	22 1/8W Carbon	AA
R3940	VRD-RA2BE102JY	J	1k 1/8W Carbon	AA
R3941	VRD-RA2BE750JY	J	75 1/8W Carbon	AA
R3942	VRS-CY1JF333JY	J	33k 1/16W Metal Oxide	AA
R5000	VRS-CY1JF750JY	J	75 1/16W Metal Oxide	AA
R5001	VRS-CY1JF750JY	J	75 1/16W Metal Oxide	AA
R5005	VRS-CY1JF750JY	J	75 1/16W Metal Oxide	AA
R5008	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R5009	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R5010	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R5012	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R5014	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R5015	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R5016	VRS-CY1JF473JY	J	47k 1/16W Metal Oxide	AA
R5017	VRS-CY1JF473JY	J	47k 1/16W Metal Oxide	AA
R6700	VRD-RA2EE821JY	J	820 1/4W Carbon	AA
R6701	VRS-TW2ED821JY	J	820 1/4W Metal Oxide	AB
R6702	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R6703	VRS-CY1JF333JY	J	33k 1/16W Metal Oxide	AA
R6704	VRS-TW2ED331JY	J	330 1/4W Metal Oxide	AB
R6708	VRS-CY1JF471JY	J	470 1/16W Metal Oxide	AA
R6709	VRS-CY1JF824JY	J	820k 1/16W Metal Oxide	AA
R6710	VRS-CY1JF471JY	J	470 1/16W Metal Oxide	AA
R6711	VRS-CY1JF824JY	J	820k 1/16W Metal Oxide	AA
R6712	VRD-RA2BE562JY	J	5.6k 1/8W Carbon	AA
R6713	VRD-RA2BE562JY	J	5.6k 1/8W Carbon	AA

Ref. No.	Part No.	★	Description	Code
R6714	VRD-RA2EE821JY	J	820 1/4W Carbon	AA
R6715	VRD-RA2EE821JY	J	820 1/4W Carbon	AA
R6716	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R6717	VRS-CY1JF333JY	J	33k 1/16W Metal Oxide	AA
R6722	VRS-CY1JF471JY	J	470 1/16W Metal Oxide	AA
R6723	VRS-CY1JF824JY	J	820k 1/16W Metal Oxide	AA
R6724	VRS-CY1JF471JY	J	470 1/16W Metal Oxide	AA
R6725	VRS-CY1JF824JY	J	820k 1/16W Metal Oxide	AA
R6726	VRS-CY1JF562JY	J	5.6k 1/16W Metal Oxide	AA
R6727	VRS-CY1JF562JY	J	5.6k 1/16W Metal Oxide	AA
R6728	VRS-TW2ED331JY	J	330 1/4W Metal Oxide	AB
R6743	VRS-CY1JF563JY	J	56k 1/16W Metal Oxide	AA
△ R7702	RR-HZ0014GEZZY	J		AE
R7703	VRN-VV3AB1R0J	J	1 1W Metal Film	AA
R7704	VRN-VV3AB1R5J	J	1.5 1W Metal Film	AA
R7705	RR-DZA030WJZZ	S	330k 2W	AB
R7706	VRD-RM2HD220JY	J	22 1/2W Carbon	AA
R7707	RR-DZA033WJZZ	J	180k 3W	AD
R7708	RR-DZA033WJZZ	J	180k 3W	AD
R7709	VRW-KP3HC3R3K	J	3.3 5W Cement	AC
R7710	VRD-RM2HD102JY	J	1k 1/2W Carbon	AA
R7711	VRS-CY1JF222JY	J	2.2k 1/16W Metal Oxide	AA
R7712	VRD-RM2HD220JY	J	22 1/2W Carbon	AA
R7713	VRD-RA2BE562JY	J	5.6k 1/8W Carbon	AA
R7714	VRD-RA2BE102JY	J	1k 1/8W Carbon	AA
R7715	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R7716	VRN-VV3ABR22J	J	0.22 1W Metal Film	AA
R7717	VRN-SV2HC1R0J	J	1 1/2W Metal Film	AA
R7718	VRD-RM2HD221JY	J	220 1/2W Carbon	AA
R7719	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA
R7720	VRS-CY1JF271JY	J	270 1/16W Metal Oxide	AA
R7721	VRD-RA2BE102JY	J	1k 1/8W Carbon	AA
R7722	VRN-SV2HC1R0J	J	1 1/2W Metal Film	AA
R7726	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R7727	VRN-RA2BK221FY	S	220 1/8W Metal Film	AA
R7729	VRD-RA2BE222JY	J	2.2k 1/8W Carbon	AA
R7730	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R7732	VRD-RM2HD221JY	J	220 1/2W Carbon	AA
R7733	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA
R7735	VRS-CY1JF473JY	J	47k 1/16W Metal Oxide	AA
R7738	VRS-CY1JF563JY	J	56k 1/16W Metal Oxide	AA
R7739	VRD-RM2HD222JY	J	2.2k 1/2W Carbon	AA
R7740	VRS-CY1JF104JY	J	100k 1/16W Metal Oxide	AA
R7741	VRS-CY1JF182JY	J	1.8k 1/16W Metal Oxide	AA
R7742	VRD-RA2BE223JY	J	22k 1/8W Carbon	AA
R7743	VRS-CY1JF563JY	J	56k 1/16W Metal Oxide	AA
R7744	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R7745	VRD-RA2EE102JY	J	1k 1/4W Carbon	AA
R7746	VRS-VV3AB560J	J	56 1W Metal Oxide	AA
R7747	VRD-RA2BE101JY	J	100 1/8W Carbon	AA
R7748	VRD-RA2BE102JY	J	1k 1/8W Carbon	AA
R7749	VRD-RA2BE102JY	J	1k 1/8W Carbon	AA

MISCELLANEOUS PARTS

△ F6700	QFS-ZA003WJZZ	J	Fuse, T1.25AL/250V	AD
△ F6702	QFS-ZA003WJZZ	J	Fuse, T1.25AL/250V	AD
△ F7701	QFS-C3229CEZZ	J	Fuse, 3.15A/250V	AD
FH7701	QFSDH1017CEZZ+	J	Fuse Holder	AC
FH7702	QFSDH1018CEZZ+	J	Fuse Holder	AC
FB3301	VP-CF3R3K0000Y	J	Peaking 3.3μH	AC
FB3302	VP-CF3R3K0000Y	J	Peaking 3.3μH	AC
FB7702	RBLN-0020CEZZ+	J	Ferrite Bead	AB
FB7704	RBLN-0090GEZZY	J	Ferrite Bead	AB
J3701	QJAKJ0101SEZZ	J	Headphone Jack	AE
J3901	QJAKFA031WJZZ	J	AUDIO OUT(L)/(R)	AC
J5000	QSOD0439CEZZ	J	S-VIDEO	AF
J5001	QJAKGA067WJZZ	J	AUDIO/VIDEO(EXT2)	AD
△ CN7701	QSOC003WJZZ	J	AC INPUT Terminal (LC-15SH1E)	AD
P3301	QPLGN0442CEZZ	J	Plug, 4-pin(TS)	AB
P3901	QCNCMA012WJZZ	J	Connector, 15-pin(MB)	AD
P3902	QCNCMA250WJZZ	S	Connector, 23-pin(MA)	AD
P6700	QPLGNA390WJZZ		Plug, 2-pin	
P6701	QPLGNA390WJZZ		Plug, 2-pin	
P6702	QPLGNA390WJZZ		Plug, 2-pin	

Ref. No.	Part No.	★	Description	Code
DUNTKC857WE06 (LC-13SH1E)				
DUNTKC857WE05 (LC-15SH1E)				
SUB UNIT (Continued)				
P6703	QPLGNA390WJZZ		Plug, 2-pin	
P7701	QCNCMA012WJZZ	J	Connector, 15-pin	AD
P7702	QPLGN0269GEZZ	J	AC INPUT Termial (LC-13SH1E)	AB
SC3601	QSOCN0895REZZ	J	Socket, 8-pin	AC
SC3901	QSOCZA056WJZZ	S	Socket, AV-IN1 (21-pin Euro-SCRAT)	AG
RDA3301	PRDARA176WJFW	S	Heat Sink, for IC3301	AD
RDA7701	PRDARA160WJFW		Heat Sink, for IC7701	
RDA7702	PRDARA161WJFW		Heat Sink, for D7703	
	LX-BZ3100CEF7	S	Screw, x3	AA

Ref. No.	Part No.	★	Description	Code
DUNTKC858WE06 (LC-13SH1E)				
DUNTKC858WE05 (LC-15SH1E)				
OPERATION UNIT				
DIODES				
D4201	RH-EX0646GEZZY	J	Zener Diode	AA
D4202	RH-EX0604GEZZY	J	Zener Diode	AB
D4203	RH-EX0604GEZZY	J	Zener Diode	AB
RESISTORS				
R4201	VRS-CY1JF122JY	J	1.2k 1/16W Metal Oxide	AA
R4202	VRS-CY1JF471JY	J	470 1/16W Metal Oxide	AA
R4203	VRS-CY1JF122JY	J	1.2k 1/16W Metal Oxide	AA
R4204	VRS-CY1JF471JY	J	470 1/16W Metal Oxide	AA
R4205	VRS-CY1JF332JY	J	3.3k 1/16W Metal Oxide	AA
SWITCHES				
S4201	QSW-P0614CEZZ	J	MAIN POWER	AF
SW4202	QSW-K0003AJZZ+	J	CH(✓)	AB
SW4203	QSW-K0003AJZZ+	J	CH(∧)	AB
SW4204	QSW-K0003AJZZ+	J	INPUT	AB
SW4205	QSW-K0003AJZZ+	J	MENU	AB
SW4206	QSW-K0003AJZZ+	J	VOL(+)	AB
SW4207	QSW-K0003AJZZ+	J	VOL(-)	AB
MISCELLANEOUS PARTS				
SC4201	QSOCN0596REZZ	J	Socket, 5-pin	AB

Ref. No.	Part No.	★	Description	Code
DUNTKC859WE06 (LC-13SH1E)				
DUNTKC859WE05 (LC-15SH1E)				
R/C, LED UNIT				

TRANSISTORS

Q4001	VSKRC104S//1Y	J	KRC104S	AA
Q4002	VSKRC104S//1Y	J	KRC104S	AA
Q4004	VSKRC104S//1Y	J	KRC104S	AA
Q4005	VSKRC104S//1Y	J	KRC104S	AA

DIODES

D4001	RH-PXA014WJZZ+	J	STANDBY/On Indicator	AD
D4002	RH-PXA014WJZZ+	J	OPC Indicator	AD
D4004	RH-EX0640GEZZY	J	Zener Diode	AA
D4005	RH-EX0640GEZZY	J	Zener Diode	AA
D4007	RH-EX0640GEZZY	J	Zener Diode	AA
D4008	RH-PXA088WJZZ		OPC Sensor	

CAPACITORS

C4001	VCEAEA1CW106M+	J	10 16V Electrolytic	AB
C4002	VCEAEA1CW106M+	J	10 16V Electrolytic	AB
C4003	VCEAEA0JW107M+	J	100 6.3V Electrolytic	AB
C4004	VCKYCY1HF103ZY	J	0.01 50V Ceramic	AA

RESISTORS

R4001	VRS-CY1JF331JY	J	330 1/16W Metal Oxide	AA
R4002	VRS-CY1JF681JY	J	680 1/16W Metal Oxide	AA
R4003	VRS-CY1JF472JY	J	4.7k 1/16W Metal Oxide	AA
R4006	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R4007	VRS-CY1JF331JY	J	330 1/16W Metal Oxide	AA
R4010	VRS-CY1JF333JY	J	33k 1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

SC4001	QSOCN0896REZZ	J	Socket, 8-pin	AC
RMC4001	RRMUA034WJQZ	J	Remote Receiver	AE
	LHLDZA486WJZZ	S	LED Holder	AD

Ref. No.	Part No.	★	Description	Code
DUNTKC860WE05 (LC-13SH1E)				
DUNTKC860WE04 (LC-15SH1E)				
MAIN UNIT				

TUNER

NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.

TU201	VTUVT1Y5ED501	S	Tuner	AS
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INTEGRATED CIRCUITS

IC101	VHiM24C64WN-1Y	J	M24C64-WMN6T	AL
IC151	VHi39VF01WH-1Q	J	I.C.	
IC501	RH-IXB219WJZZQ	J	I.C.	
IC701	VHiLM1117MJ-1Y	J	LM1117MPX-ADJ	AF
IC702	VHiMM1563DF-1Y	J	MM1563DFBE	AE
IC703	VHiLM1117MJ-1Y	J	LM1117MPX-ADJ	AF
IC704	VHiBA05FP++-1Y	J	BA05FP-E2	AF
IC751	VHiNJ79M08D-1Y	J	NJM79M08DL1A	AF
IC801	RH-IX3251CEZZY	J	TDA9178T/N1	AY
IC1101	VHiBD8120FP-1Y	J	BD8120FP	AX
IC1201	RH-IXA370WJZZQ	J	LR38819	AY
IC2201	VHiTLVDF84B-1Y	J	THC63LVDF84B	AT

TRANSISTORS

Q101	VSFMMT718//1Y	J	FMMT718	AE
Q102	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q103	VSFMMT718//1Y	J	FMMT718	AE
Q104	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q105	VSUM5K1NTR+-1Y	J	UM5K1NTR	AC
Q201	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q202	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q205	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q701	VSDTA144EE/-1Y	J	DTA144EE	AA
Q702	VSDTA124EE/-1Y	J	DTA124EE	AB
Q751	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q752	VS2SA1530AR-1Y	J	2SA1530A	AB
Q753	VSDTC144EE/-1Y	J	DTC144EE	AA
Q754	VSFMMT718//1Y	J	FMMT718	AE
Q755	VSDTC144EE/-1Y	J	DTC144EE	AA
Q756	VSDTC144EE/-1Y	J	DTC144EE	AA
Q757	VSDTC144EE/-1Y	J	DTC144EE	AA
Q758	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q759	VSDTA144EE/-1Y	J	DTA144EE	AA
Q801	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q802	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q803	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q1105	VS2SC4520//1Y	J	2SC4520	AE
Q1106	VS2SA1729//1Y	J	2SA1729	AF

DIODES

D101	VHDHSU119//1Y	J	Diode	AB
D202	RH-EXA101WJZZY	J	Zener Diode	AB
D203	VHDB481K++-1Y	J	Diode	AD
D204	VHD1SS390++-1Y	J	Diode	AB
D205	VHDHSU119//1Y	J	Diode	AB
D206	VHDHSU119//1Y	J	Diode	AB
D208	VHD1SS390++-1Y	J	Diode	AB
D701	VHDHSU119//1Y	J	Diode	AB
D702	VHDHSU119//1Y	J	Diode	AB
D703	VHDHSU119//1Y	J	Diode	AB
D704	VHD1SS119//1Y	J	Diode	AA
D751	RH-EXA099WJZZY	J	Zener Diode	
D755	VHDB481K++-1Y	J	Diode	AD
D756	VHDHSU119//1Y	J	Diode	AB
D757	VHDHSU119//1Y	J	Diode	AB
D759	VHD1SS250//1EY	J	Diode	AB
D1103	VHD1SS250//1EY	J	Diode	AB
D1104	VHD1SS250//1EY	J	Diode	AB
D1201	VHDHSU119//1Y	J	Diode	AB
D1202	VHDHSU119//1Y	J	Diode	AB

PACKAGED CIRCUITS

X101	RCRSAA058WJZZ	J	Crystal	
X501	RCRSAA037WJZZ	J	Crystal	AE

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
DUNTKC860WE05 (LC-13SH1E)									
DUNTKC860WE04 (LC-15SH1E)									
MAIN UNIT									
FILTERS AND COILS									
SF201	RFILCA102WJZZ	S	S.A.W Filter	AH	C414	VCKYCY1HB103KY	J	0.01 50V Ceramic	AA
SF202	RFILCA103WJZZ	S	S.A.W Filter	AM	C415	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
L202	RCiLPA143WJZZY	J	Coil	AD	C416	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
L751	RCiLPA143WJZZY	J	Coil	AD	C417	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
L752	VPCNN470J5R4NY	J	Peaking 47μH	AB	C418	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
L2201	VPCNN2R7JR85NY	J	Peaking 2.7μH	AB	C419	VCCCCY1HH101JY	J	100p 50V Ceramic	AA
L2202	VPCNN2R7JR85NY	J	Peaking 2.7μH	AB	C420	VCEASX1CN106MY	J	10 16V Electrolytic	AC
CAPACITORS					C421	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C101	VCKYCY1CF224ZY	J	0.22 16V Ceramic	AB	C501	VCEASX0JN226MY	J	22 6.3V Electrolytic	AB
C102	VCKYCY1CF224ZY	J	0.22 16V Ceramic	AB	C504	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C104	VCKYCY1CF224ZY	J	0.22 16V Ceramic	AB	C505	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C106	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA	C506	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C107	VCKYCY1CF224ZY	J	0.22 16V Ceramic	AB	C507	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C109	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA	C510	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C110	VCKYCY1CF224ZY	J	0.22 16V Ceramic	AB	C511	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C111	VCEASX0JN227MY	J	220 6.3V Electrolytic	AC	C512	VCEASX0JN226MY	J	22 6.3V Electrolytic	AB
C113	VCKYCY1CF224ZY	J	0.22 16V Ceramic	AB	C513	VCEASX1CN106MY	J	10 16V Electrolytic	AC
C116	VCKYCY1CF224ZY	J	0.22 16V Ceramic	AB	C514	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C117	VCEASX0JN107MY	J	100 6.3V Electrolytic	AC	C515	VCKYCY1HB102KY	J	1000p 50V Ceramic	AA
C118	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA	C517	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C119	VCKYCY1CF224ZY	J	0.22 16V Ceramic	AB	C518	VCKYCY1HB102KY	J	1000p 50V Ceramic	AA
C121	VCKYCY1CF224ZY	J	0.22 16V Ceramic	AB	C519	VCCCCY1HH8R0DY	J	8p 50V Ceramic	AA
C122	VCKYCY1CF224ZY	J	0.22 16V Ceramic	AB	C520	VCCCCY1HH8R0DY	J	8p 50V Ceramic	AA
C123	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA	C521	VCEASX0JN226MY	J	22 6.3V Electrolytic	AB
C124	VCEASX0JN107MY	J	100 6.3V Electrolytic	AC	C522	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C126	VCEASX1CN106MY	J	10 16V Electrolytic	AC	C523	VCEASX0JN226MY	J	22 6.3V Electrolytic	AB
C127	VCKYCY1CB223KY	J	0.022 16V Ceramic	AB	C524	VCEASX0JN226MY	J	22 6.3V Electrolytic	AB
C128	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	C525	VCEASX0JN226MY	J	22 6.3V Electrolytic	AB
C151	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA	C535	VCKYCY1CF224ZY	J	0.22 16V Ceramic	AB
C152	VCEASX1CN106MY	J	10 16V Electrolytic	AC	C536	VCKYCY1CF224ZY	J	0.22 16V Ceramic	AB
C161	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	C547	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C162	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	C548	VCKYCY1CF224ZY	J	0.22 16V Ceramic	AB
C163	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	C549	VCEASX0JN107MY	J	100 6.3V Electrolytic	AC
C201	VCEASX1CN106MY	J	10 16V Electrolytic	AC	C550	VCKYCY1CF224ZY	J	0.22 16V Ceramic	AB
C203	VCKYCY1HF333ZY	J	0.033 50V Ceramic	AA	C551	VCEASX0JN107MY	J	100 6.3V Electrolytic	AC
C204	VCEASX1CN476MY	J	47 16V Electrolytic	AC	C552	VCKYCY1CF224ZY	J	0.22 16V Ceramic	AB
C205	VCEASX1CN476MY	J	47 16V Electrolytic	AC	C554	VCKYCY1CF224ZY	J	0.22 16V Ceramic	AB
C206	VCEASX0JN227MY	J	220 6.3V Electrolytic	AC	C556	VCEASX0JN107MY	J	100 6.3V Electrolytic	AC
C207	VCEASX1HN225MY	J	2.2 50V Electrolytic	AB	C557	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C208	VCKYCY1HB103KY	J	0.01 50V Ceramic	AA	C558	VCKYCY1CF224ZY	J	0.22 16V Ceramic	AB
C213	VCKYCY1HB103KY	J	0.01 50V Ceramic	AA	C570	VCKYCY1CB333KY	J	0.033 16V Ceramic	AA
C215	VCEASX1CN106MY	J	10 16V Electrolytic	AC	C571	VCCCCY1HH100DY	J	10p 50V Ceramic	AA
C216	VCEASX1HN225MY	J	2.2 50V Electrolytic	AB	C574	VCKYCY1CB333KY	J	0.033 16V Ceramic	AA
C217	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA	C575	VCKYCY1CB333KY	J	0.033 16V Ceramic	AA
C218	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA	C576	VCCCCY1HH100DY	J	10p 50V Ceramic	AA
C220	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA	C578	VCKYCY1CB333KY	J	0.033 16V Ceramic	AA
C301	VCEASX1HN475MY	J	4.7 50V Electrolytic	AC	C579	VCKYCY1CB223KY	J	0.022 16V Ceramic	AB
C302	VCKYCY1HB392KY	J	3900p 50V Ceramic	AA	C580	VCKYCY1CB333KY	J	0.033 16V Ceramic	AA
C303	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA	C581	VCCCCY1HH100DY	J	10p 50V Ceramic	AA
C304	VCEASX1HN225MY	J	2.2 50V Electrolytic	AB	C582	VCKYCY1CB333KY	J	0.033 16V Ceramic	AA
C305	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	C701	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C306	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	C702	VCEASX1CN476MY	J	47 16V Electrolytic	AC
C331	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	C703	VCEASX0JN107MY	J	100 6.3V Electrolytic	AC
C332	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	C704	VCEASX1CN476MY	J	47 16V Electrolytic	AC
C358	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	C709	VCEASX1CN106MY	J	10 16V Electrolytic	AC
C359	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	C710	VCEASX1CN476MY	J	47 16V Electrolytic	AC
C360	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	C711	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C361	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	C712	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C362	VCKYTV1EB474KY	J	0.47 25V Ceramic	AC	C720	VCEASX1CN106MY	J	10 16V Electrolytic	AC
C363	VCKYTV1EB474KY	J	0.47 25V Ceramic	AC	C721	VCKYCY1HB471KY	J	470p 50V Ceramic	AA
C366	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	C722	VCEASX1CN476MY	J	47 16V Electrolytic	AC
C367	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	C723	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C368	VCKYTV1EB474KY	J	0.47 25V Ceramic	AC	C724	VCEASX1CN106MY	J	10 16V Electrolytic	AC
C369	VCKYTV1EB474KY	J	0.47 25V Ceramic	AC	C725	VCKYCY1CF224ZY	J	0.22 16V Ceramic	AB
C409	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	C751	VCEASX1HN225MY	J	2.2 50V Electrolytic	AB
C410	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	C752	VCEASX1CN106MY	J	10 16V Electrolytic	AC
C411	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA	C753	VCEASX1CN107MY	J	100 16V Electrolytic	AC
C412	VCCCCY1HH101JY	J	100p 50V Ceramic	AA	C754	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C413	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA	C758	RC-KZ0075TAZZY	J	2.2 16V Ceramic	AC
					C759	VCEASX1HN225MY	J	2.2 50V Electrolytic	AB
					C760	VCEASX1CN107MY	J	100 16V Electrolytic	AC
					C761	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
					C763	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
					C764	VCEASX1HN475MY	J	4.7 50V Electrolytic	AC
					C765	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA

Ref. No.	Part No.	★	Description	Code
DUNTKC860WE05 (LC-13SH1E)				
DUNTKC860WE04 (LC-15SH1E)				
MAIN UNIT (Continued)				
C766	VCAAPC0JJ107MY	J 100	6.3V Electrolytic	AE
C801	VCEASX1HN105MY	J 1	50V Electrolytic	AB
C802	VCKYCY1HB682KY	J 6800p	50V Ceramic	AA
C803	VCKYCY1CF224ZY	J 0.22	16V Ceramic	AB
C804	VCEASX1CN106MY	J 10	16V Electrolytic	AC
C805	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C806	VCKYCY1CF334ZY	J 0.33	16V Ceramic	AB
C807	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C808	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C809	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C810	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C811	VCCCCY1HH220JY	J 22p	50V Ceramic	AA
C812	VCCCCY1HH220JY	J 22p	50V Ceramic	AA
C813	VCCCCY1HH220JY	J 22p	50V Ceramic	AA
C814	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C815	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C816	VCEASX1CN106MY	J 10	16V Electrolytic	AC
C817	RC-KZ0074TAZZY	J 10	6.3V Ceramic	AF
C818	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C819	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C820	VCEASX1CN476MY	J 47	16V Electrolytic	AC
C821	VCKYCY1HB102KY	J 1000p	50V Ceramic	AA
C822	VCEASX0JN107MY	J 100	6.3V Electrolytic	AC
C823	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C825	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C826	VCEASX1CN106MY	J 10	16V Electrolytic	AC
C827	RC-KZ0074TAZZY	J 10	6.3V Ceramic	AF
C828	RC-KZ0074TAZZY	J 10	6.3V Ceramic	AF
C829	RC-KZ0074TAZZY	J 10	6.3V Ceramic	AF
C830	VCCCCY1HH470JY	J 47p	50V Ceramic	AA
C831	VCCCCY1HH470JY	J 47p	50V Ceramic	AA
C832	VCCCCY1HH470JY	J 47p	50V Ceramic	AA
C833	VCKYCY1HB271KY	J 270p	50V Ceramic	AA
C834	VCKYCY1HB271KY	J 270p	50V Ceramic	AA
C835	VCKYCY1HB271KY	J 270p	50V Ceramic	AA
C1104	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1106	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1107	RC-KZA041WJZZY	J 10	10V Ceramic	AC
C1108	VCCCCY1HH560JY	J 56p	50V Ceramic	AB
C1109	RC-KZA041WJZZY	J 10	10V Ceramic	AC
C1110	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1113	VCKYCY1HB103KY	J 0.01	50V Ceramic	AA
C1116	VCKYTV1CB105KY	J 1	16V Ceramic	AC
C1117	VCKYTV1CB105KY	J 1	16V Ceramic	AC
C1118	VCKYCY1EB104KY	J 0.1	25V Ceramic	AB
C1119	RC-KZA041WJZZY	J 10	10V Ceramic	AC
C1120	VCEASY1HN106MY	J 10	50V Electrolytic	AC
C1202	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1203	RC-KZ0117TAZZY	J 4.7	6.3V Ceramic	AD
C1210	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1213	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1214	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1215	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1216	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C2201	VCEASX1CN106MY	J 10	16V Electrolytic	AC
C2202	VCKYCY1HB103KY	J 0.01	50V Ceramic	AA
C2203	VCEASX1CN106MY	J 10	16V Electrolytic	AC
C2204	VCKYCY1HB103KY	J 0.01	50V Ceramic	AA
C2205	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C2206	VCCCCY1HH470JY	J 47p	50V Ceramic	AA

RESISTORS

R101	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA
R102	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA
R103	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R104	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R105	VRS-CY1JF153JY	J 15k	1/16W Metal Oxide	AA
R106	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R107	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R108	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R109	VRS-CY1JF222JY	J 2.2k	1/16W Metal Oxide	AA

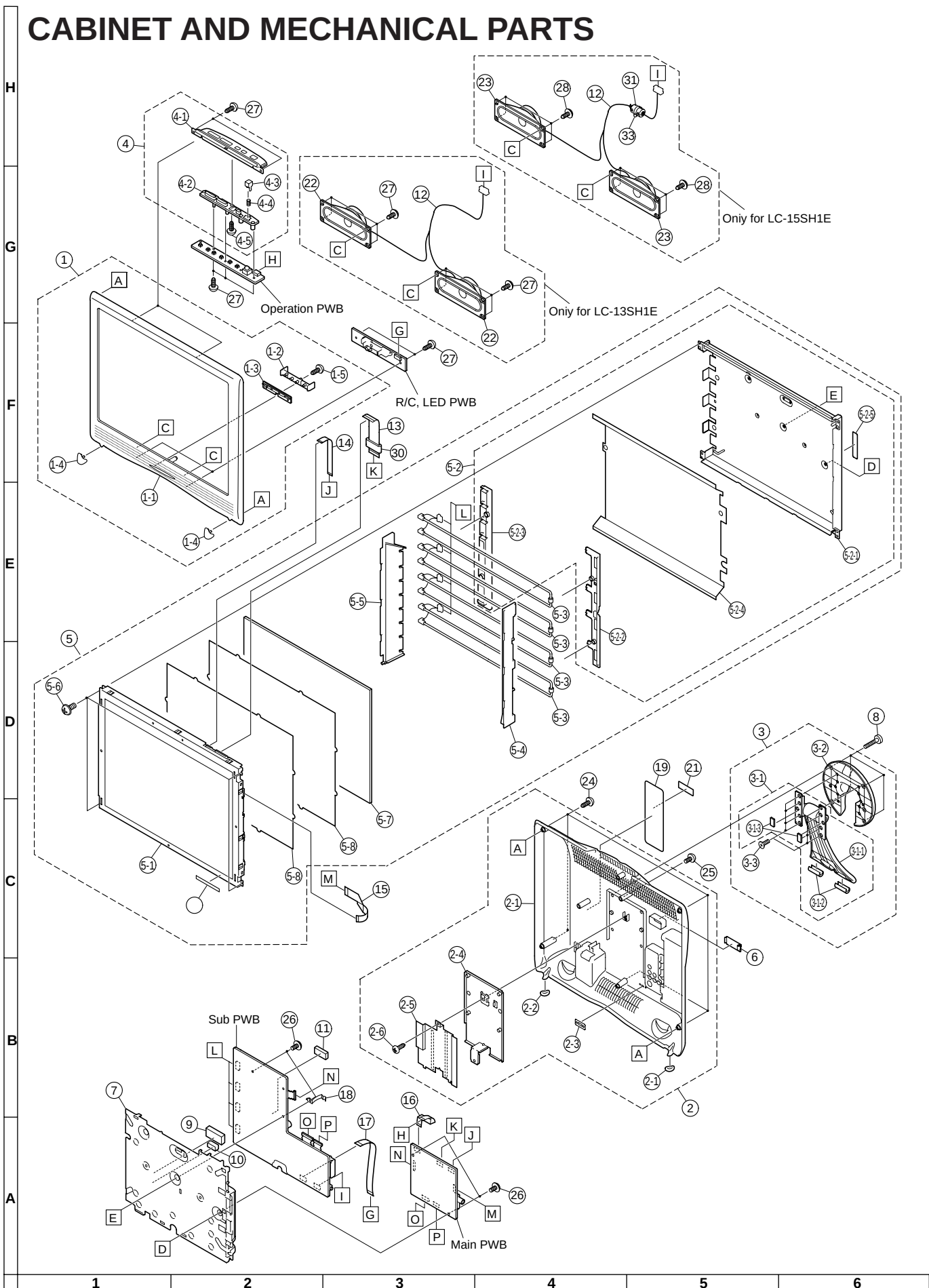
Ref. No.	Part No.	★	Description	Code
R111	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R113	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R114	VRS-CY1JF2R2JY	J 2.2	1/16W Metal Oxide	AA
R115	VRS-CY1JF2R2JY	J 2.2	1/16W Metal Oxide	AA
R116	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R117	VRS-CY1JF2R2JY	J 2.2	1/16W Metal Oxide	AA
R118	VRS-CY1JF2R2JY	J 2.2	1/16W Metal Oxide	AA
R119	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R120	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R122	VRS-CY1JF153JY	J 15k	1/16W Metal Oxide	AA
R123	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R124	VRS-CY1JF154JY	J 150k	1/16W Metal Oxide	AA
R125	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA
R126	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R127	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R129	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R131	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R132	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R133	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R134	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R136	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA
R137	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA
R138	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R139	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R140	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R141	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R142	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R143	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R144	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R145	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA
R146	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R147	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R148	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R149	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R151	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R152	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R161	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA
R164	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA
R201	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R202	VRS-CY1JF122JY	J 1.2k	1/16W Metal Oxide	AA
R203	VRS-CY1JF122JY	J 1.2k	1/16W Metal Oxide	AA
R204	VRS-CY1JF122JY	J 1.2k	1/16W Metal Oxide	AA
R205	VRS-CY1JF122JY	J 1.2k	1/16W Metal Oxide	AA
R206	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA
R207	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R208	VRS-CY1JF392JY	J 3.9k	1/16W Metal Oxide	AA
R209	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R210	VRS-CY1JF153JY	J 15k	1/16W Metal Oxide	AA
R211	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA
R212	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R217	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R218	VRS-CY1JF681JY	J 680	1/16W Metal Oxide	AA
R219	VRS-CJ1JF102JY	J 1k	1/16W Metal Oxide	AA
R220	VRS-CY1JF122JY	J 1.2k	1/16W Metal Oxide	AA
R221	VRS-CY1JF122JY	J 1.2k	1/16W Metal Oxide	AA
R224	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R237	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R239	VRS-CY1JF222JY	J 2.2k	1/16W Metal Oxide	AA
R301	VRS-CY1JF391JY	J 390	1/16W Metal Oxide	AA
R302	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R303	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R304	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R305	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R306	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R362	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R363	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R364	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R365	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R366	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R367	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R368	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R369	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R370	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R371	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R423	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
DUNTKC860WE05 (LC-13SH1E)									
DUNTKC860WE04 (LC-15SH1E)									
MAIN UNIT (Continued)									
R544	VRS-CY1JF823JY	J 82k	1/16W Metal Oxide	AA	R833	VRS-CY1JF121JY	J 120	1/16W Metal Oxide	AA
R548	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R834	VRS-CY1JF750JY	J 75	1/16W Metal Oxide	AA
R549	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R835	VRS-CY1JF750JY	J 75	1/16W Metal Oxide	AA
R550	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R836	VRS-CY1JF750JY	J 75	1/16W Metal Oxide	AA
R551	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1101	VRS-CY1JF273JY	J 27k	1/16W Metal Oxide	AA
R552	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1102	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA
R553	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1103	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA
R554	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1104	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R555	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1112	VRS-CY1JF181JY	J 180	1/16W Metal Oxide	AA
R556	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1113	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R557	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1114	VRS-CY1JF181JY	J 180	1/16W Metal Oxide	AA
R558	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1117	VRS-TW2HF5R6JY	J 5.6	1/2W Metal Oxide	AA
R559	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1118	VRS-TW2HF5R6JY	J 5.6	1/2W Metal Oxide	AA
R570	VRS-CY1JF100JY	J 10	1/16W Metal Oxide	AA	R1121	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R571	VRS-CY1JF470JY	J 47	1/16W Metal Oxide	AA	R1122	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R573	VRS-CY1JF100JY	J 10	1/16W Metal Oxide	AA	R1123	VRS-TW2HF000JY	J 0	1/2W Metal Oxide	AA
R574	VRS-CY1JF470JY	J 47	1/16W Metal Oxide	AA	R1124	VRS-TW2HF101JY	J 100	1/2W Metal Oxide	AA
R575	VRS-CY1JF100JY	J 10	1/16W Metal Oxide	AA	R1126	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R576	VRS-CY1JF470JY	J 47	1/16W Metal Oxide	AA	R1128	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R577	VRS-CY1JF123JY	J 12k	1/16W Metal Oxide	AA	R1129	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R701	VRS-CY1JF121JY	J 120	1/16W Metal Oxide	AA	R1130	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R702	VRS-CY1JF271JY	J 270	1/16W Metal Oxide	AA	R1203	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R704	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA	R1204	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R705	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1205	VRK-CD1JJ220JY	J 22	1/16W Metal Compo.	AC
R709	VRS-TW2HF000JY	J 0	1/2W Metal Oxide	AA	R1206	VRK-CD1JJ220JY	J 22	1/16W Metal Compo.	AC
R710	VRS-CY1JF271JY	J 270	1/16W Metal Oxide	AA	R1207	VRK-CD1JJ220JY	J 22	1/16W Metal Compo.	AC
R711	VRS-CY1JF471JY	J 470	1/16W Metal Oxide	AA	R1208	VRS-CY1JF220JY	J 22	1/16W Metal Oxide	AA
R716	VRS-TW2HF101JY	J 100	1/2W Metal Oxide	AA	R1209	VRS-CY1JF220JY	J 22	1/16W Metal Oxide	AA
R717	VRS-TW2HF101JY	J 100	1/2W Metal Oxide	AA	R1210	VRS-CA1JF220JY	J 22	1/16W Metal Oxide	AA
R718	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1211	VRS-CA1JF101JY	J 100	1/16W Metal Oxide	AA
R751	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA	R1214	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R752	VRS-CY1JF272JY	J 2.7k	1/16W Metal Oxide	AA	R1215	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R753	VRS-TW2ED102JY	J 1k	1/4W Metal Oxide	AA	R1216	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R754	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA	R1217	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R755	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA	R1218	VRS-CY1JF220JY	J 22	1/16W Metal Oxide	AA
R757	VRS-TW2ED103JY	J 10k	1/4W Metal Oxide	AA	R1223	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R761	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA	R1230	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA
R762	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA	R1240	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R764	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA	R1241	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R766	VRS-TW2HF330JY	J 33	1/2W Metal Oxide	AA	R1242	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R767	VRS-TW2HF472JY	J 4.7k	1/2W Metal Oxide	AA	R1243	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R769	VRS-CY1JF562JY	J 5.6k	1/16W Metal Oxide	AA	R2203	VRS-CB1JF470JY	J 47	1/16W Metal Oxide	AA
R801	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	R2204	VRS-CB1JF470JY	J 47	1/16W Metal Oxide	AA
R802	VRS-CY1JF123JY	J 12k	1/16W Metal Oxide	AA	R2205	VRS-CB1JF470JY	J 47	1/16W Metal Oxide	AA
R803	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	R2206	VRS-CB1JF470JY	J 47	1/16W Metal Oxide	AA
R804	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA	R2207	VRS-CB1JF470JY	J 47	1/16W Metal Oxide	AA
R805	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA	R2208	VRS-CB1JF470JY	J 47	1/16W Metal Oxide	AA
R806	VRS-CY1JF105JY	J 1 M	1/16W Metal Oxide	AA	R2224	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R807	VRS-CY1JF393JY	J 39k	1/16W Metal Oxide	AA	R2225	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R808	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	R2226	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R809	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	R2227	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R810	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	R2228	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R811	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	R2232	VRS-CY1JF100JY	J 10	1/16W Metal Oxide	AA
R812	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	R2233	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R813	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	MISCELLANEOUS PARTS				
R814	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	FB101	RBLN-0062TAZZY	J	Ferrite Bead	AB
R815	VRS-CY1JF100JY	J 10	1/16W Metal Oxide	AA	FB102	RBLN-0062TAZZY	J	Ferrite Bead	AB
R816	VRS-CY1JF273JY	J 27k	1/16W Metal Oxide	AA	FB103	RBLN-0062TAZZY	J	Ferrite Bead	AB
R817	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA	FB104	RBLN-0062TAZZY	J	Ferrite Bead	AB
R819	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA	FB105	RBLN-0062TAZZY	J	Ferrite Bead	AB
R820	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA	FB106	RBLN-0062TAZZY	J	Ferrite Bead	AB
R821	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA	FB107	RBLN-0062TAZZY	J	Ferrite Bead	AB
R822	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA	FB108	RBLN-0062TAZZY	J	Ferrite Bead	AB
R823	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA	FB109	RBLN-0062TAZZY	J	Ferrite Bead	AB
R824	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA	FB151	RBLN-0062TAZZY	J	Ferrite Bead	AB
R825	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA	FB201	RBLN-0062TAZZY	J	Ferrite Bead	AB
R826	VRS-CY1JF104JY	J 100k	1/16W Metal Oxide	AA	FB204	RBLN-0062TAZZY	J	Ferrite Bead	AB
R827	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA	FB401	RBLN-0062TAZZY	J	Ferrite Bead	AB
R828	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	FB501	RBLN-0062TAZZY	J	Ferrite Bead	AB
R829	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	FB502	RBLN-0062TAZZY	J	Ferrite Bead	AB
R830	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	FB504	RBLN-0062TAZZY	J	Ferrite Bead	AB
R831	VRS-CY1JF121JY	J 120	1/16W Metal Oxide	AA	FB507	RBLN-0062TAZZY	J	Ferrite Bead	AB
R832	VRS-CY1JF121JY	J 120	1/16W Metal Oxide	AA	FB508	RBLN-0062TAZZY	J	Ferrite Bead	AB
					FB531	RBLN-0062TAZZY	J	Ferrite Bead	AB

Ref. No.	Part No.	★	Description	Code
DUNTKC860WE05 (LC-13SH1E)				
DUNTKC860WE04 (LC-15SH1E)				
MAIN UNIT (Continued)				
FB532	RBLN-0062TAZZY	J	Ferrite Bead	AB
FB533	RBLN-0062TAZZY	J	Ferrite Bead	AB
FB535	RBLN-0062TAZZY	J	Ferrite Bead	AB
FB801	RBLN-0062TAZZY	J	Ferrite Bead	AB
FB802	RBLN-0062TAZZY	J	Ferrite Bead	AB
FB803	RBLN-0062TAZZY	J	Ferrite Bead	AB
FB804	RBLN-0062TAZZY	J	Ferrite Bead	AB
FB805	RBLN-0062TAZZY	J	Ferrite Bead	AB
FB806	RBLN-0062TAZZY	J	Ferrite Bead	AB
FB807	RBLN-0062TAZZY	J	Ferrite Bead	AB
FB808	RBLN-0062TAZZY	J	Ferrite Bead	AB
FB809	RBLN-0062TAZZY	J	Ferrite Bead	AB
FB1201	RBLN-0083GEZZY	J	Ferrite Bead	AB
P2002	QPLGNA144WJZZY	J	Plug, 20-pin	AF
SC102	QCNCWA010WJZZY	J	Connector, 15-pin	AE
SC104	QCNCWA010WJZZY	J	Connector, 15-pin	AE
SC105	QSOCN0596REZZ	J	Socket, 5-pin	AB
SC106	QCNCWA251WJZZY	S	Connector, 23-pin	AF
SC1201	QSOCNA002WJPZY	J	Socket, 20-pin	AD
SC1202	QSOCN0687FJZZY	J	Socket, 50-pin	AF
SC1203	QSOCN0206FJZZY	J	Socket, 30-pin	AF
TP101	QLUGHA006WJZZY	J	Lug	AC
TP102	QLUGHA006WJZZY	J	Lug	AC

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
CABINET AND MECHANICAL PARTS (LC-13SH1E)					30	RCORFA032WJZZ	J	Ferrite Core	AK
					35	GCOVHA069WJKA		AC Holder	
					36	LHLDK0002PEK0	J	AC Cord Holder	AA
1	CCABAA755WJ01		Cabinet A Ass'y						
1-1	Not Available	—	Cabinet A	—					
1-2	HDECQA452WJSA		R/C, LED Cover						
1-3	HDECQA459WJSA		LED Cover						
1-4	HDECQA478WJSA		Leg Cover, x2						
1-5	XEBNS30P08000	J	Screw, x1	AA					
2	CCABBA485WJ01		Cabinet B Ass'y						
2-1	Not Available	—	Cabinet B	—					
2-2	GLEGGA042WJZZ		Rubber Leg, x2						
2-3	LANGFA085WJFW	J	Kensington Angle	AC					
2-4	LANGTA159WJFW		Reinforcement Angle						
2-5	PZETKA109WJZZ		Insulating Spacer, x1						
2-6	XEBNS30P08000	J	Screw, x1	AA					
3	CDAi-A154WJ01		Stand Ass'y						
3-1	CDAi-A154WJ02		Stand Base Ass'y						
3-1-1	GDAi-A154WJSA		Stand Base						
3-1-2	GLEGGA041WJSA		Rubber Leg, x2						
3-1-3	PSPAZA083WJZZ	J	Spacer, x2	AB					
3-2	GCOVAB023WJSA		Stand Cover						
3-3	XESSN40P10000	J	Screw, x8	AB					
4	CCOVAB201WJ01		Top Cover Ass'y						
4-1	Not Available	—	Top Cover	—					
4-2	JBTA-A353WJSA		Operation Button						
4-3	JBTA-A354WJSA		Power Button						
4-4	MSPRCA014WJFW	J	Spring, for Power Button	AB					
4-5	XEBNS30P08000	J	Screw, x1	AA					
5	Not Available	—	13" LCD Panel Unit Ass'y	—					
5-1	RLCDA023WJZZ	J	13" LCD Panel Unit	CQ					
5-2	Not Available	—	Back Shield Ass'y	—					
5-2-1	PSLDMA542WJFW		Back Shield						
5-2-2	LHLDZA429WJKZ	J	Lamp Holder-R(Bottom)	AF					
5-2-3	LHLDZA435WJKZ	J	Lamp Holder-L(Bottom)	AF					
5-2-4	PSHEPA229WJZZ	J	Reflection Sheet	AK					
5-2-5	TCAUZA031WJZZ	J	Caution Label	AB					
5-2-6	PMLT-A149WJZZ	J	Light Shielding Spacer, x2	AB					
△ 5-3	KLMP-A048WJZZ	J	Lamp Unit, x4	AV					
5-4	LHLDZA433WJKZ	J	Lamp Holder-R(Top)	AH					
5-5	LHLDZA434WJKZ	J	Lamp Holder-L(Top)	AH					
5-6	LX-BZA084WJF7	J	Screw, x4	AA					
5-7	PCOVUA047WJZZ	J	Diffusion Plate, x1	AT					
5-8	PSHEPA230WJZZ	J	Diffusion Sheet, x2	AH					
6	GCOVAA984WJKA	S	Bass-Conne Cover	AD					
7	LCHSMA146WJKA	S	Chassis Frame	AR					
8	LX-BZ3442CEF9	J	Screw, x4	AB					
9	PSPAZA640WJKZ	S	Spacer, x1	AL					
10	PSPAZA641WJKZ	S	Spacer, x1	AF					
11	PSPAZA642WJKZ	S	Spacer, x1	AH					
12	QCNW-D115WJQZ		Connecting Cord						
13	QCNW-D228WJQZ		Connecting Cord						
14	QCNW-D229WJQZ		Connecting Cord						
15	QCNW-D231WJQZ		Connecting Cord						
16	QCNW-D362WJQZ		Connecting Cord						
17	QCNW-D363WJQZ		Connecting Cord						
18	QEARPA132WJFW		Grounding Part, x1						
19	TLABMB319WJZZ		Model Label (LC-13SH1E/E(F)/E(K)/E(R))						
19	TLABMB475WJZZ		Model Label(LC-13SH1E(I))						
20	TLABNB105WJZZ		EICTA Label						
21	Not Available	—	Serial No. Label	—					
22	VSP7530PB678B	J	Speaker, x2	AL					
24	XEBS930P14000	J	Screw, x5	AA					
25	XHBS830P10000	S	Screw, x1	AA					
26	XHPS730P08WS0	J	Screw, x4	AA					
27	XEBNS30P08000	J	Screw, x15	AA					
29	TLABSA029WJZZ	J	GOST Label (LC-13SH1E(R))	AF					

CABINET AND MECHANICAL PARTS



Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
CABINET AND MECHANICAL PARTS (LC-15SH1E)					29	TLABSA029WJZZ	J	GOST Label (LC-15SH1E(R))	AF
					30	RCORFA032WJZZ	J	Ferrite Core	AK
					31	RCORF0103CEZZ	J	Ferrite Core	AK
					32	PSPAZA677WJZZ		Spacer, x1	
					33	LHLDW1033CEKZ	J	Wire Holder	AA
					34	PSLDMA694WJZZ		Shield	
1	CCABAA754WJ01		Cabinet A Ass'y						
1-1	Not Available	—	Cabinet A	—					
1-2	HDECQA452WJSA		R/C, LED Cover						
1-3	HDECQA459WJSA		LED Cover						
1-4	HDECQA478WJSA		Leg Cover, x2						
1-5	XEBNS30P08000	J	Screw, x1	AA					
2	CCABBA484WJ01		Cabinet B Ass'y						
2-1	Not Available	—	Cabinet B	—					
2-2	GLEGGA042WJZZ		Rubber Leg, x2						
2-3	LANGFA085WJFW	J	Kensington Angle	AC					
2-4	LANGTA158WJFW		Reinforcement Angle						
2-5	PZETKA109WJZZ		Insulating Spacer						
2-6	XEBNS30P08000	J	Screw, x1	AA					
3	CDAi-A153WJ01		Stand Ass'y						
3-1	CDAi-A153WJ02		Stand Base Ass'y						
3-1-1	GDAi-A153WJSA		Stand Base						
3-1-2	GLEGGA041WJSA		Rubber Leg, x2						
3-1-3	PSPAZA083WJZZ	J	Spacer, x2	AB					
3-2	GCOVAB023WJSA		Stand Cover						
3-3	XESSN40P10000	J	Screw, x8	AB					
4	CCOVAA976WJ01	S	Top Cover Ass'y	AP					
4-1	Not Available	—	Top Cover	—					
4-2	JBTA-A353WJSA		Operation Button						
4-3	JBTA-A354WJSA		Power Button						
4-4	MSPRCA014WJFW	J	Spring, for Power Button	AB					
4-5	XEBNS30P08000	J	Screw, x1	AA					
5	Not Available	—	15" LCD Panel Unit Ass'y	—					
5-1	RLCDA024WJZZ	J	15" LCD Panel Unit	CT					
5-2	Not Available	—	Back Shield Ass'y	—					
5-2-1	PSLDMA541WJFW		Back Shield						
5-2-2	LHLDZA425WJKZ	J	Lamp Holder-R(Bottom)	AF					
5-2-3	LHLDZA426WJKZ	J	Lamp Holder-L(Bottom)	AF					
5-2-4	PSHEPA228WJZZ	J	Reflection Sheet	AL					
5-2-5	TCAUZA031WJZZ	J	Caution Label	AB					
△ 5-3	KLMP-A047WJZZ	J	Lamp Unit, x4	AV					
5-4	LHLDZA423WJKZ	J	Lamp Holder-L(Top)	AK					
5-5	LHLDZA424WJKZ	J	Lamp Holder-R(Top)	AH					
5-6	LX-BZA084WJF7	J	Screw, x4	AA					
5-7	PCOVUA046WJZZ	J	Diffusion Plate, x1	AV					
5-8	PSHEPA227WJZZ	J	Diffusion Sheet, x2	AK					
5-9	PSPAKA045WJZZ	J	Insulating Spacer	AB					
6	GCOVAA984WJKA	S	Bass-Conne Cover	AD					
7	LCHSMA146WJKA	S	Chassis Frame	AR					
8	LX-BZ3442CEF9	J	Screw, x4	AB					
9	PSPAZA640WJKZ	S	Spacer, x1	AL					
10	PSPAZA641WJKZ	S	Spacer, x1	AF					
11	PSPAZA642WJKZ	S	Spacer, x1	AH					
12	QCNW-D114WJQZ		Connecting Cord						
13	QCNW-D228WJQZ		Connecting Cord						
14	QCNW-D229WJQZ		Connecting Cord						
15	QCNW-D230WJQZ		Connecting Cord						
16	QCNW-D362WJQZ		Connecting Cord						
17	QCNW-D363WJQZ		Connecting Cord						
18	QEARPA132WJFW		Grounding Part						
19	TLABMB318WJZZ		Model Label (LC-15SH1E/E(F)/E(K)/E(R))						
19	TLABMB474WJZZ		Model Label(LC-15SH1E(I))						
20	TLABZA792WJZZ		EICTA Label						
21	Not Available	—	Serial No. Label	—					
23	VSP1104PB038A	J	Speaker, x2	AK					
24	XEBS930P14000	J	Screw, x5	AA					
25	XHBS830P10000	S	Screw, x1	AA					
26	XHPS730P08WS0	J	Screw, x4	AA					
27	XEBNS30P08000	J	Screw, x7	AA					
28	XEBNS40P10000	J	Screw, x8	AB					

Ref. No.	Part No.	★	Description	Code
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SUPPLIED ACCESSORIES

△ X1	QACCBA016WJPZ	J	AC Cord (LC-15SH1E(K))	AR
△ X1	QACCBA024WJPZ	J	AC Cord (LC-13SH1E(K))	AS
△ X1	QACCKA006WJPZ	J	AC Cord (LC-15SH1E/E (F)/E(I)/E(R))	AL
△ X1	QACCZA019WJPZ	J	AC Cord (LC-13SH1E/E (F)/E(I)/E(R))	AH
X2	RRMCGA339WJSA		Wireless Remote Control	
X3	TiNS-B517WJN1		Operation Manual	
X4	TiNS-B634WJN1		Instruction Book(LC-13SH1E/ E(F), LC-15SH1E(E(F))	
X5	TiNS-B635WJN1		Instruction Book(LC-13SH1E, LC-15SH1E)	
X6	TiNS-B800WJZZ		Instruction Book(LC-13SH1E (R), LC-15SH1E(R))	
X7	TGAN-1688CEN1	J	Guarantee Card(LC-13SH1E (K), LC-15SH1E(K))	AN
X8	TGAN-A077WJZZ	J	Guarantee Card(LC-13SH1E (R), LC-15SH1E(R))	AE
X9	Not Available	—	"AA" Size Battery, x2	—

Ref. No.	Part No.	★	Description	Code
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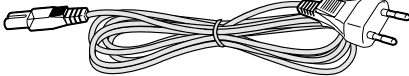
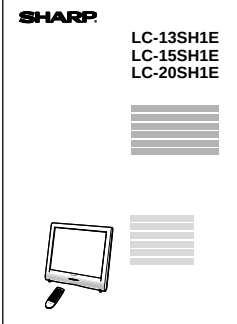
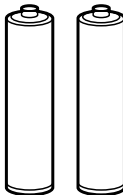
PACKING PARTS (NOT REPLACEMENT ITEM)

S1	SPAKCB717WJZZ	—	Packing Case(LC-15SH1E)	—
S1	SPAKCB718WJZZ	—	Packing Case(LC-13SH1E)	—
S2	SPAKPA465WJZZ	—	Wrapping Paper (LC-15SH1E)	—
S2	SPAKPA466WJZZ	—	Wrapping Paper (LC-13SH1E)	—
S3	SPAKXA655WJZZ	—	Buffer Material(LC-15SH1E)	—
S3	SPAKXA656WJZZ	—	Buffer Material(LC-13SH1E)	—
S4	SSAKAA010WJZZ	—	Polyethylene Bag,(E(I)/E(K)/ E(R)x1, E(F)x2, Ex3)	—
S5	TLABKA002WJZZ	—	Carton Label	—
S6	TLABN0134BMZZ	—	SEES No. Label	—
S7	TLABSA029WJZZ	—	GOST Label (LC-13SH1E(R), LC-15SH1E(R))	—

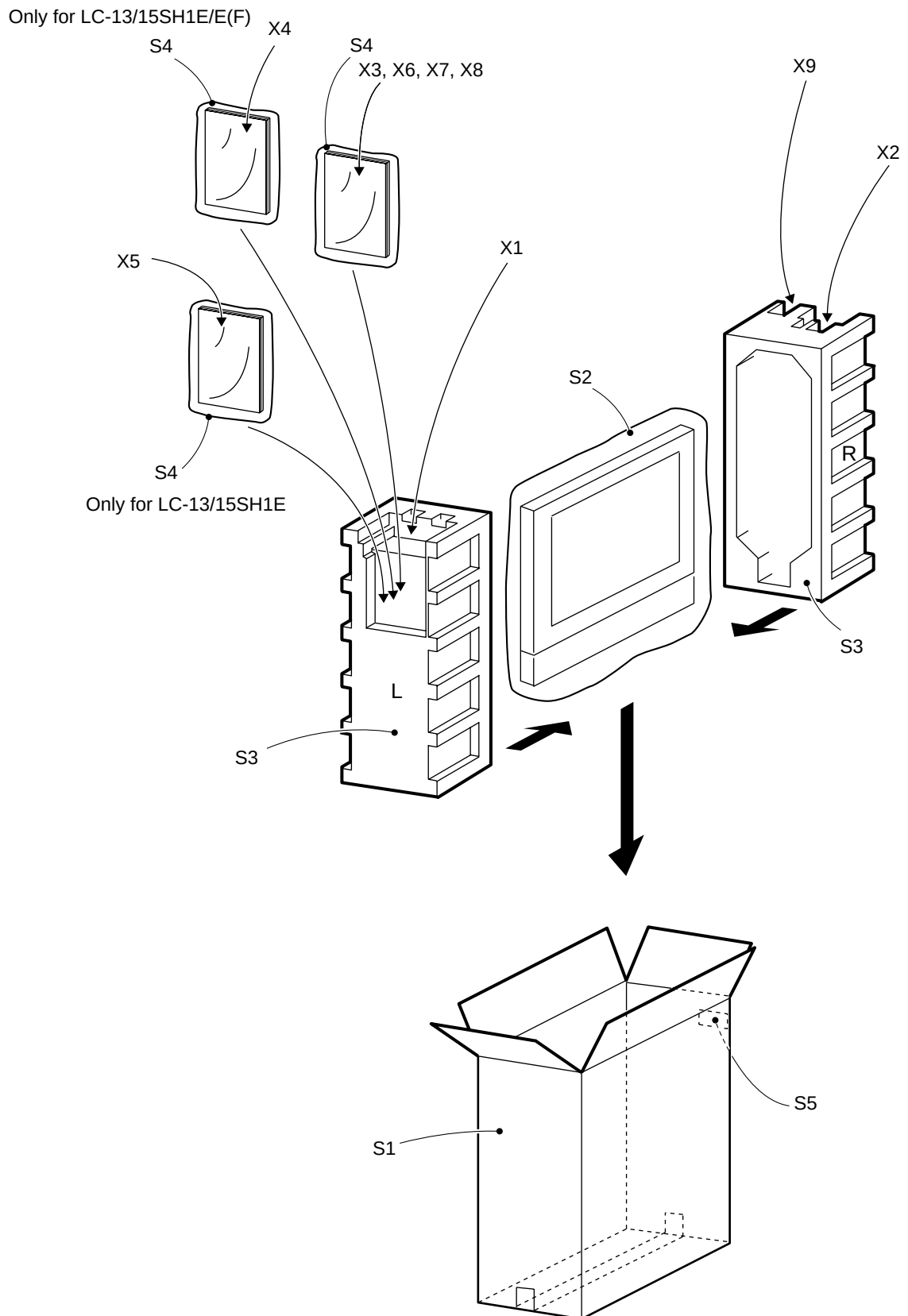
SERVICE JIGS (USE FOR SERVICING)

QCNW-A553WJZZ	J	Extension Cable, 30-pin (SC1203-LCD)	BA
QCNW-A556WJZZ	J	Extension Cable, 50-pin (SC1202-LCD)	AU
QCNW-A555WJZZ	J	Extension Cable, 20-pin (SC1201-LCD)	AU
QCNW-D444WJZZ	J	Extension Cable, 5-pin (SC4201-SC105)	
QCNW-D445WJZZ	J	Extension Cable, 8-pin (SC4001-SC3601)	
JiGiNF-001	J	Parallel Part-IIC Interface Jig	

Supplied Accessories

AC cord	Wireless remote control	Operation manual	"AA" size batteries (×2)
X1  *Product shape may vary from country to country.	X2 	X3 	X9 

PACKING OF THE SET



SHARP

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